

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: City of Bellevue Park and Community Services			
LOCATION OF PROPOSAL: 11560 SE 60 th Street			
critical 1150 I constr	DESCRIPTION OF PROPOSAL: Develop a new neighborhood park on a site with steep slope critical areas, a stream buffer and an associated structure setback. The proposal includes creating 1150 lineal feet of trail within the buffer and structure setback, associated grading and rockery wall construction to maintain an accessible grade and the installation of a mitigation planting plan utilizing native vegetation.		
FILE N	NUMBERS: 20-114187-LO PLANNER: Carol Orr, 425-452-2896		
have a Staten Bellev filed w	nvironmental Coordinator of the City of Bellevue has determined that this proposal does not a probable significant adverse impact upon the environment. An Environmental Impact nent (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the ue Environmental Coordinator reviewed the completed environmental checklist and information with the Land Use Division of the Development Services Department. This information is ble to the public on request.		
	There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on		
	This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on 12/3/2020		
	This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5:00 p.m. on		
enviro signific	ons may be withdrawn at any time if the proposal is modified so as to have significant adverse needed impacts; if there is significant new information indicating a proposals probable cant adverse environmental impacts (unless a non-exempt license has been issued if the sal is a private project): or if the DNS was procured by misrepresentation or lack of material sure.		
Eliz	abeth Stead February 18, 2021		
	onmental Coordinator beth Stead, Land Use Director		
Sta	RS TO RECEIVE THIS DOCUMENT: ate Department of Fish and Wildlife / Stewart.Reinbold@dfw.gov ate Department of Ecology, Shoreline Planner N.W. Region /MARI461@ECY.WA.GOV; paunit@ecy.wa.gov my Corps of Engineers torney General ecyolyef@atg.wa.gov uckleshoot Indian Tribe glen.stamant@muckleshoot.nsn.us Fisheries.fileroom@muckleshoot.nsn.us		



City of Bellevue Development Services Department Land Use Staff Report

Proposal Name: Newport Hills Neighborhood Park

Proposal Address: 11560 SE 60th Street

Proposal Description: Critical Areas Land Use Permit to develop a new

neighborhood park on an undeveloped site with steep slope critical areas, a stream buffer and an associated structure setback. The proposal includes the creation of 1150 +/- lineal feet foot-long by 8-foot-wide gravel trail, with grading and rockery wall construction within the stream buffer and structure setback. Most of the of the trail will be constructed near the top of bank delineation to Lakehurst Creek. The

project will includes mitigation planting with native

vegetation.

File Number: 20-114187-LO

Applicant: Scott VanderHyden, Bellevue Parks and Community Services

Decisions IncludedCritical Areas Land Use Permit

(Process II. 20.30P)

Planner: Carol Orr, Land Use Planner

State Environmental Policy Act

Threshold Determination: Determination of Non-Significance

Elizabeth Stead

Elizabeth Stead, Environmental Coordinator

Development Services Department

Director's Decision: Approval with Conditions

Michael A. Brennan, Director Development Services Department

By: Elizabeth Stead

Elizabeth Stead, Land Use Director

Application Date: September 11, 2020
Notice of Application Date: October 15, 2020
Decision Publication Date: February 18, 2021
Project/SEPA Appeal Deadline: March 4, 2021

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on

the date noted for appeal of the decision.

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A. B. C. D.	Site Plan Mitigation Plan Critical Area Study Subsurface Exploration, Geologic Hazard, Infiltration Assessment and Engineering Report SEPA Checklist	Geotechnical

I. Proposal Description

The City of Bellevue Parks and Community Services Department proposes to create a neighborhood park at a vacant residential lot addressed as 11560 SE 60th Street. Proposed improvements to the site for the park use will include new pedestrian trails, fencing, sidewalks, parking and vehicle circulation features, a picnic structure, a children's play area, two off-leash dog play areas, and restrooms. Most of the planned improvements will occur along the eastern property line, the side most distant from the critical areas, and completely outside of the steep slope and stream buffers and structure setback. Improvements to the site within the stream and slope buffer and structure setback include construction of an on-grade, gravel walkway connecting the street frontage to the existing trail network at the north end of the site. Retaining walls will be provided in several locations in order to keep the grade of the path to a minimum. All other development on site occurs outside of these critical area buffers and structure setbacks.

Impacts of the proposal include:

- Construction of an 8-foot-wide, 1150-foot-long gravel trail
- Minor clearing and grading
- Construction of rockery walls within the stream buffer and structure setback to moderate grade within the buffer
- Access and traffic control features (signage, bollards, etc.)
- Forest management including removal of invasive species and native enhancement plantings.

The proposed path through the buffer will provide direct access from the public right of way to the existing wooded trail on the adjacent parcel to the north. lot. These trails provide passive recreation for hikers, runners, bird watchers, families and environmental education school groups. The trail be ADA accessible to provide all park users the ability to enjoy the site. The new trail will provide an off-road connection to existing trails, improve local connections, and improve the active, non-motorized, transportation network.

A Critical Area Land Use Permit (CALUP) is required because disturbance is proposed within the stream and slope buffers and structure setback to construct the trail and retaining walls. Construction of a public park trail is an allowed use in a critical area or buffer provided that compliance with the standards of LUC 20.25H.055.C.3.G.i. is demonstrated. Mitigation for the proposal will include the removal of invasive species and the planting of 16,706 square feet of native vegetation including 59 native trees. See Figure 1 below for the location of proposed work within the Critical Area Buffers and Setbacks.

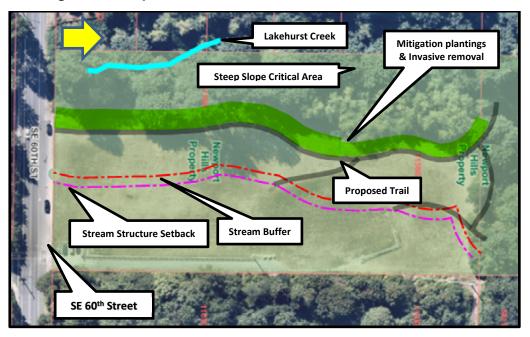


Figure 1 - Proposed work within Critical Area Buffers/Setbacks

II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 11560 SE 60th Street within the City of Bellevue Newport Hills Neighborhood. The proposed trail of this project connects to an existing trail loop at the north end of the site. The site is part of the larger City of Bellevue Parks property to the north. The combined parcels total approximately 13.5 acres. The trail will be located only on the most southern parcel. The subject parcel is approximately 4.8 acres in size. The parcel is currently an undeveloped open space of maintained grass with trees and invasive species at the east and west property lines. A type-F stream, Lakehurst Creek, is present along the west property line at the bottom of a steep ravine. No developments other than public trails are present.

The subject site, formerly known as the Patterson Acquisition, is a residentially zoned lot that has been undeveloped for many years. The proposed trail, fencing, mitigation plantings and retaining walls will be located within the buffer and structure setback to a type-F stream corridor, Lakehurst Creek. The new trail will be approximately 8-feet-wide by 1150-feet-long. The trail location will take advantage of existing social trails, and the area currently maintained as grass to minimize disturbance. See figure 2 below for project site.

Figure 2: Project Site

A. Zoning

This parcel is located within the R-5 single-family zoning district. The properties to the west are single family developments, as are those south of the site on the opposite side of SE 60th Street. The property to the east is Ringdall Middle School. The parcel to the north is undeveloped and is owned by the City of Bellevue Parks. The properties adjacent to Ardmore Park and in the immediate vicinity of the project site are zoned R-5. See Figure 3 and 4 for zoning and vicinity information.

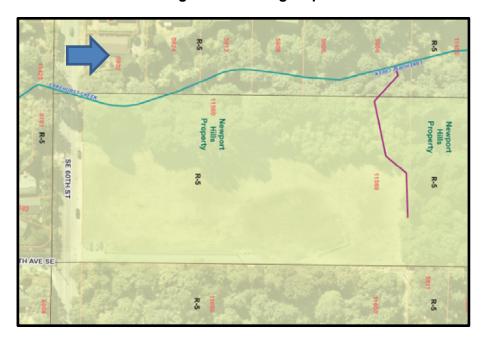


Figure 3 – Zoning Map

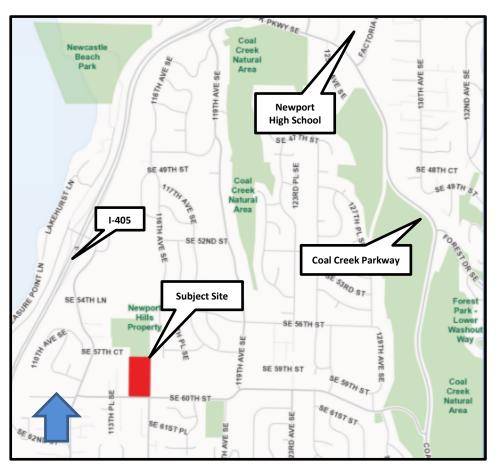


Figure 4 – Vicinity Map

C. Land Use Context

The property has a Comprehensive plan Land Use Designation of P/SF-H (Park/Single Family High Density). Improvement of parks facilities is consistent with this land use.

D. Critical Areas On-Site and Regulations

1. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provide a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

2. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi- canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

3. Habitat Associated with Species of Local Importance

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005 Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States,

yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005). Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The proposed trail and rockery walls comply with R-5 zoning dimensional requirements. Retaining walls taller than 30 inches are required to be placed outside of all required structure setbacks. The development activities comply with the land use dimensional requirements as applicable. All Land Use Code requirements will be confirmed during review of required construction permits.

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The project area is within a type-F stream buffer, a steep slope buffer, and the associated structure setbacks. Due to the lack of development on the site, it was defined as undeveloped for the purposes of determining the required buffer and structure setback dimensions. Per Land Use Code 20.25H.075.C the site is required to provide a 100 foot buffer and a 20 foot structure setback. The proposal is subject to the performance standards found in LUC 20.25H as specified in the table below

Critical Areas	Geologic Hazard- Steep Slopes
	Stream Buffer & Structure Setback
Performance Standards	20.25H.055.C.3.G.i
	20.25H.080
	20.25H.125
	20.25H.150

1. Consistency with LUC 20.25H.055.C.3.G.i

Trails. New non-motorized trails within the critical area or critical area buffer must meet following standards:

a. Trail location and design shall result in the least impacts on the critical area or critical area buffer;

Finding: The trail is designed to be located parallel to contours, where possible, and to take advantage of existing social trails established by users of the site over the years, within areas previously maintained as a grass field by the Parks Department. The trail design undulates through the top of slope buffer and stream buffer following the contours of the vegetated buffer at the top of the ravine. No work occurs below the top of bank, or the top of the slope. The ravine will be protected by fencing and dense landscaping. The design has been selected to minimize vegetation disturbance. No tree removal is proposed.

 Trails shall be designed to complement and enhance the environmental, educational, and social functions and values of the critical area with trail design and construction focused on managing and controlling public access and limiting uncontrolled access;

Finding: The trail design will provide a dedicated pedestrian path to the walking trails at the north end of the site. Fencing will keep off leash dogs within the designated off leash area, and a split rail fence and vegetation will discourage humans or their pets from entering the ravine. Removal of the invasive blackberry bushes will provide a more natural plant pallet adjacent to the stream, and adds to the scenic experience of trail users. Interpretive and directional signage will complement the mission of the City's Natural Resources Enhancement and Education policies. These policies include directing park visitors towards educational opportunities and instructing them not only to avoid entering/damaging sensitive areas but why these areas are important. Signage within the off leash area informs dog owners about water quality, and how picking up after their pet supports this.

c. Trails shall be designed to avoid disturbance of significant trees and to limit disturbance of native understory vegetation;

Finding: The trail is designed to avoid disturbance of the root zones of sensitive and significant trees and no removal of significant trees is proposed. Only grass is planted in the area where the permanent disturbance will occur.

There is no native understory vegetation where work is proposed. All trail work will be done by hand with hand tools.

d. Trails shall be designed to avoid disturbance of habitat used for salmonid rearing or spawning or by any species of local importance.

Finding: The trail is proposed to be placed near the top of the slope of a well vegetated ravine. Lakehurst Creek lies at the bottom of the ravine, approximately 75 feet below the proposed trail location. No portion of the trail will extend below the top of slope and a dense revegetation plan will discourage human and dog intrusion into the ravine. A split-rail fence at the trail's edge will provide additional hindrances to the critical area. The trails location avoids disturbance of existing trees within the ravine, within the steep slope and below the top of bank demarcation.

e. The trail shall be the minimum width necessary to accomplish the intended function or objective;

Finding: The eight-foot width of the trail is considered the minimum safe and convenient width to provide for necessary social distancing measures and to accommodate maintenance or emergency vehicles.

f. All work shall be consistent with the City of Bellevue's "Environmental Best Management Practices" and all applicable City of Bellevue codes and standards, now or as hereafter amended;

Finding: All work will adhere to the City of Bellevue Best Management Practices (BMP's) as identified in the Storm Water Pollution Prevent Plan (SWPPP) and Subsurface Exploration, Geologic Hazard, Infiltration Assessment and Geotechnical Engineering Report prepared by the Associated Earth Sciences, Inc. dated February 21, 2020.

g. The facility shall not significantly change or diminish overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod;

Finding: The trail is bordered by a dense vegetated buffer near the top of slope and top of bank. All retaining walls should be provided with a drain. A subsurface drainage system is to be provided below the existing field due to the low permeability of the existing fill and native soils. The vault will provide flow control, and discharge after treatment to Lakehurst Creek. Stormwater discharge and concentrated run off will not be permitted to flow down the steep slopes, and are to be conveyed to an appropriate discharge location. As stated in the Subsurface Exploration, Geologic Hazard, Infiltration Assessment and Geotechnical Engineering Report prepared by the Associated Earth Sciences, Inc. dated February 21, 2020: "Run-off water from impervious surfaces should be collected by the storm drain system that discharges in to the site stormwater system." Compliance with the city's stormwater codes will ensure no significant impact to aquatic resources. See Conditions of Approval regarding Utilities Conceptual Approval in Section IX of this report.

h. Where feasible and consistent with any accessibility requirements, any trail shall be constructed of pervious materials;

Finding: The geotechnical engineer has determined the soils present on site do not infiltrate. Pervious materials would not be feasible for this project. The trail will be surfaced with gravel.

 Crossings over and penetrations into wetlands and streams shall be generally perpendicular to the critical area, and shall be accomplished by bridging or other technique designed to minimize critical area disturbance considering the entire trail segment and function;

Finding: No crossings over the stream are proposed for this project. Per the submitted Critical Area Study by Skillings Connolly, no wetlands exist on site.

j. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210;

Finding: A mitigation and restoration plan including 16,706 square feet of stream buffer to be planted with native vegetation is included in the proposal.

2. Consistency with LUC 20.25H.080

a. Lights shall be directed away from the stream.

Finding: Limited lighting will be provided on site, and only along the eastern property line. See Conditions of Approval regarding Exterior Lighting in Section IX of this report.

b. Activity that generates noise such as parking lots, generators, and residential uses shall be located away from the stream or any noise shall be minimized through use of design and insulation techniques.

Finding: The parking area, the picnic structure and restrooms are all located on the eastern side of the lot away from the critical area. Noise generating activity will be limited to conversations from trail users and the occasional dog bark.

c. Toxic runoff from new impervious area shall be routed away from the stream.

Finding: Runoff from all new impervious surfaces areas shall be directed to an on-site detention vault. The vault will provide flow control to limit the rate of dispersal to the storm drainage system, and water quality treatment will be provided.

d. Treated water may be allowed to enter the stream critical area buffer.

Finding: Stormwater will be provided on site before water is discharged to Lakehurst Creek. Flow control will ensure that the speed of the discharge will be regulated.

e. The outer edge of the stream critical area buffer shall be planted with

dense vegetation to limit pet or human use.

Finding: Between the top of the slope and top of bank and the trail, a dense mitigation planting plan will discourage intrusion from pets and human use. In addition to the plantings, a split rail fence will be provided to allow wildlife to traverse the site.

f. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.

Finding: The City's Parks Department follows the guidance in their "Environmental Best Management Practices." As part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers shall be documented. **See Section X of this report for Condition of Approval regarding the use of Pesticides, Insecticides and Fertilizers.**

g. All applicable standards of Chapter 24.06 BCC, Storm and Surface Water Utility Code, are met.

Finding: Utilities reviewers have reviewed and approved with conditions the proposed project.

3. Consistency with LUC 20.25H.125

In addition to generally applicable performance standards set forth in LUC 20.25H.055, development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following additional performance standards in design of the development, as applicable. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function

a. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography; Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetationThe proposed development shall not result in greater risk or a need for increased buffers on neighboring propertiesThe use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wallDevelopment shall be designed to minimize impervious surfaces within the critical area and critical area bufferWhere change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteriaBuilding foundation walls shall be utilized as retaining walls rather than rockeries

or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundationOn slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modificationOn slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction typesAreas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210

The trail is designed to be located parallel to contours where possible and to take advantage of existing social trails, and areas with an established, maintained grass field. These tactics will minimize impact to the critical areas. The stream and steep slope side of the trail shall be protected by a split rail fencing and a robust replanting plan to discourage human and dog intrusion into the critical area. The design has been selected to minimize vegetation disturbance and no removal of significant trees is proposed. The trail will be surfaced with gravel, as it was determined that the soils on sit do not infiltrate. Permanent disturbance within the stream buffer and structure setback calculate to approximately 8,500 square feet. Mitigation for the proposal will include the removal of invasive Himalayan Blackberry (Rubus discolor, R. procerus) and other invasive species and the planting of 16,705 square feet of native vegetation including approximately 59 native trees.

4. Consistency with LUC 20.25H.150

Habitat (other than the critical areas and critical area buffers otherwise designated in LUC 20.25H.025) associated with species of local importance is hereby designated a critical area; provided, that compliance with these species of local importance regulations, LUC 20.25H.150 through LUC 20.25H.170 inclusive, shall constitute compliance with the requirements of this part where such habitat is located outside of other critical areas designated in this part.

Impacts to habitat from the proposed project will be related to ground disturbance of top of slope and stream buffers from the construction of an 8-foot-wide by 1,150-foot long foot trail. Impacts from removal and clearing of vegetation can result in erosion and introduction of invasive species into the site. However, the applicant has provided a Temporary Erosion and Sedimentation Control plan to lessen these possibilities. The placement of the trail within the grass field area of the site has been chosen to minimize vegetation removal.

While no species of local importance were seen on site, the potential for their presence exists. No significant trees are proposed to be removed. The project proposes to restore 16,706 square feet of habitat area by the removal of invasive and non-native species; and replanting with native vegetation including 59 native trees, plus shrubs

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and groundcover. The use of hand construction and equipment will be used for this portion of the project.

IV. Public Notice and Comment

Application Date: September 11, 2020
Public Notice (500 feet): October 15, 2020
Minimum Comment Period: October 29, 2020

The Notice of Application for this project was published the City of Bellevue weekly permit bulletin on October 15, 2020. It was mailed to property owners within 500 feet of the project site. 3 written comments were received from concerned property owners.

Below is a summary of comments received by the City regarding this proposal:

Neighboring property owners at the mouth of Lakehurst Creek to Lake Washington voiced concerns about flooding on their properties.

Minimal new impervious surfaces will be constructed as part of this proposal. The project will be reviewed under the 2020 City of Bellevue Utilities Engineering Standards and a Utilities Developer Extension Agreement will be required. A Storm Drainage Report and a Geotechnical report will be required to demonstrate compliance with Stormwater Standards. The applicant will be required to demonstrate through modeling that the proposed improvements associated with the project will not result in downstream flooding or erosion.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development and has approved the application. A clearing and grading permit with a Temporary Erosion and Sediment Control Plan will be required. See Conditions of Approval regarding Clearing and Grading Permit Requirement and Temporary Erosion and Sedimentation Control Plan in Section IX of this report.

B. Utilities

The development proposed for this application has been reviewed on a conceptual basis and can be feasibly constructed under current Utility codes and standards without requesting modifications or deviations from them. Major changes to the design or information submitted under this permit may cause delay in approval of future construction permits. It is the applicant's responsibility to verify the accuracy all field information and data gathered for the utility design and feasibility of this project.. A clearing and grading permit is required and must comply with the Utility standards and codes.

Storm Drainage

The site is located within the Lakehurst Creek Drainage Basin. The project drains to Lake Washington via Lakehurst Creek. The project is new development as there is less than 35% existing impervious surface. Minimum Requirements MR #1-9 will likely apply.

MR #5 On-site Stormwater Management. The applicant will need to choose whether to demonstrate compliance with the Performance Standard and BMP T5.13; or use On-site Stormwater Management BMPs from List #2for all surfaces within each type of surface in List #2.

MR #6 Runoff Treatment. The project will likely trigger this requirement and will need to provide water quality treatment of runoff from pollution-generating surfaces.

MR #7 Flow Control. The project proposes to use a detention vault to control the rate of runoff from the project.

MR #8 Wetland Protection. This requirement will be evaluated if necessary, in the Preliminary Storm Drainage Report. There are no wetland plants species located within the grass area dog park, per the *Wetland Reconnaissance for Grass Newport Hills SE 60th* conducted by Skillings Inc. on August 17,2020. The finding is outlined in the Skillings Inc. Technical Memorandum of September 3, 2020

MR #9 Operations and Maintenance. A Storm Drainage O&M Manual will be required as a separate document in the UE permit submittal package.

Water

The water supply for this project is provided from the City of Bellevue NH 470 pressure zone water mains located in SE 60th St. The project proposes to install a new domestic water service.

Sewer

The project proposes to connect sanitary sewer to an existing SSMH in the intersection of SE 60th St. and 116th Ave SE. A side sewer application will be required for the new connection. These are obtained through the online UA permit application process.

<u>See Conditions of Approval regarding Utilities Conceptual Approval in Section IX</u> of this report.

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

A. Earth, Air, and Water

A temporary erosion and sedimentation control plan will be required as part of the approval of the required clear and grade permit, and shall address all requirements for restoring areas of temporary construction disturbance and permanent disturbance, as well as erosion and sedimentation best management practices. Erosion and sediment control best management practices include the installation of silt fencing around the work area and covering exposed soils to prevent migration of soils towards the adjacent stream. Pervious pavement materials will not be utilized on the site as the soils do not infiltrate.

See Conditions of Approval regarding Rainy Season Restrictions and Temporary Erosion and Sedimentation Control Plan in Section X of this report.in Section IX of this report.

B. Animals

The project area includes publicly owned natural area open space and trails that contain quality habitat for birds and mammals. Although no species were observed on the site, there is suitable habitat for Pileated woodpecker, and Vaux's swift. Deer, bobcat, racoon and other small woodland animals are regular visitors to the site. The proposed activities should be minimally to these species as much of the work occurs within the open grassy area, not within the forested area where these species are more likely to be present. No trees are proposed for removal. These impacts are not environmentally significant and will be mitigated by the removal of invasive species and replanting of 16,706 square feet of steep slope and stream buffers with native vegetation including 59 native trees. See Conditions of Approval regarding Pesticides, Insecticides and Fertilizers in Section IX of this report.

C. Plants

The site contains a forested ravine and stream corridor vegetated by a diverse assemblage of native and invasive plants including mature conifers. Tree species include red alder, maple, and western red cedar. The shrub layer consists primarily of invasive Himalayan blackberry. The impacts due to the removal of the noxious weed species is not environmentally significant and will be mitigated by the replanting of 16,706 square feet of steep slope and stream buffers with native vegetation including 59 native trees and 578 shrubs and groundcovers. See Conditions of Approval regarding Mitigation Plan and Monitoring Plan in Section IX of this report.

VII. Decision Criteria

A. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. The proposal obtains all other permits required by the Land Use Code;

The applicant must obtain a clearing and grading permit. <u>See Conditions of Approval in Section IX of this report.</u>

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

The trail will be surfaced with gravel as the soils on site do not infiltrate. Retaining walls will be the minimum height necessary to maintain a safe grade for the trail. All work will adhere to the City of Bellevue Best Management Practices (BMP's) as identified in the Storm Water Pollution Prevent Plan (SWPPP) and the Subsurface Exploration, Geologic Hazard, Infiltration Assessment and Geotechnical Engineering Report prepared by the Associated Earth Sciences, Inc., dated February 21, 2020.

The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and; As discussed in Section III of this report, the applicable performance standards of LUC Section 20.25H are being met. <u>See Conditions of Approval regarding Mitigation Plan and Monitoring Plan in Section IX of this report.</u>

4. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

The proposal is served by adequate public facilities and this project is meant to enhance public facilities. See Conditions of Approval regarding Utilities Permits Required in Section IX of this report.

5. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

The new trail and retaining walls will be aligned to follow existing topography wherever possible. Vegetation disturbance will be limited due to the maintained grass conditions where the path is proposed. Impacts due to the proposal be mitigated by the removal of invasive species and replanting of 16,706 square feet of steep slope and stream buffers with native vegetation including 59 native trees.

VIII. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the construction of an 1,150-foot-long by 8-foot-wide gravel trail and associated retaining walls in the proposed Newport Hills Park located in a type-F stream buffer, steep slopes and associated buffers, and structure setbacks. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction.** A clear and grade permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards. See Conditions of Approval regarding Clear and Grade Permit in Section IX of this report.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a clear and grade permit or other necessary development permits within one year of the effective date of the approval.

IX. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Carol Orr, 425-452-2896
Noise Control- BCC 9.18	Carol Orr, 425-452-2896

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. Utilities Conceptual Approval: Utility Department approval of the design review application is based on the final conceptual design submitted with this application. Final utility design and construction approval is not given under this permit. Small changes to the site layout may be required to accommodate the utilities after utility engineering is approved. The water, sewer, and storm drainage systems shall be designed per the current City of Bellevue Utility Codes and Utility Engineering Standards. Utilities Department design review, plan approval, and field inspection is performed under the Utilities Permit Processes. All connection charges will be due prior to issuance of the respective permits. Easements will be required as necessary for new publicly owned facilities, and easement modifications will be required for areas where public utilities and easements are no longer existing. All and any unused existing services on site must be abandoned back to the main.

Authority: BCC Title 24.02, 24.04 and 24.06 Reviewer: Christopher Brookes, Utilities

2. Clear and Grade Permit Required: Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. Application for a clear and grade permit must be submitted and approved before construction can begin. Plans submitted as part of either permit application shall be consistent with the activity permitted under this approval. A title verified survey shall be submitted as part of the application for the clear and grade permit.

Authority: Land Use Code 20.30P.140

Clearing & Grading Code 23.76.035

Reviewer: Carol Orr, Land Use

Savina Uzunow, Clearing & Grading

3. Temporary Erosion and Sedimentation Control Plan: A temporary erosion and sedimentation control plan will be required as part of the clear and grade permit application, and shall address all requirements for restoring areas of temporary construction disturbance, as well as erosion and sedimentation best management practices.

Authority: Bellevue City Code 23.76

Reviewer: Savina Uzunow, Clearing & Grading

4. Rainy Season Restrictions: The project site is subject to rainy season restrictions. Specific approval from the Development Services Department is required to begin or

continue clearing & grading activities during the rainy season (Oct.1 through Apr. 30) without written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

Authority: Bellevue City Code 23.76.093.A,
Reviewer: Savina Uzunow, Clearing & Grading

5. Exterior Lighting: All exterior lighting shall be shielded to avoid spillover affects into the stream buffer .

Authority: Land Use Code 20.25H.080

Reviewer: Carol Orr, Land Use

6. Utilities Permits Required: All and any unused existing services on site must be abandoned back to the main. A UE permit is required for Storm Drainage improvements. A UA permit is required for each sanitary side sewer connection/modification, and a UC permit is required for domestic and irrigation water services 2-inch and smaller.

Authority: BCC Title 24.02, 24.04 and 24.06 Reviewer: Christopher Brookes, Utilities

7. **Mitigation Plan:** The mitigation plan dated January 8, 2019 (attachment 2) for all areas of temporary and permanent disturbance is required to be submitted for review and approval by the City of Bellevue prior to the issuance of the Clearing and Grading Permit. The version submitted for this permit review must be modified to show a mitigation plan with a continuous 30-foot deep planting area with additional native trees and shrubbery. All existing trees must be shown to safeguard new planting survival.

Authority: Land Use Code 20.25H.220

Reviewer: Carol Orr, Land Use

8. Monitoring Plan: A monitoring plan shall be submitted for review and approval prior to the issuance of the Clearing and Grading permit. The plan shall a method by which performance standards of the mitigation plan will be met, for a period not less than 5 years.

Any planting area outlined in the critical area restoration plan shall be maintained and monitored for a total of five (5) years. Annual monitoring reports by a qualified professional must to be submitted to the City of Bellevue's Land Use Division for five years at the end of each growing season. Photos from designated photo points approved by the City shall be included in the monitoring reports to document continued success. The monitoring may be discontinued after three years if, in the opinion of the Department, the long-term success of the mitigation is assured. The following schedule and performance standards apply and are evaluated in the report for each year:

Year 1 (from date of plant installation)

100% survival of all installed plants and/or replanting in following dormant season to reestablish 100%

Newport Hills SE 60th Street Neighborhood Park 20-114187-LO Page 20 of 25

0% coverage of invasive plants in planting area

Year 2 (from date of plant installation)

At least 90% survival of all installed material

Less than 5% coverage of planting area by invasive species or non-native/ornamental vegetation

Year 3, 4, & 5 (from date of plant installation)

At least 85% survival of all installed material

At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively

Less than 5% coverage by invasive species or non-native/ornamental vegetation

The reports can be sent to Carol Orr at COrr@bellevuewa.gov or to the address below:

Environmental Planning Manager Development Services Department City of Bellevue PO Box 90012 Bellevue, WA 98009-9012

Authority: Land Use Code 20.25H.220

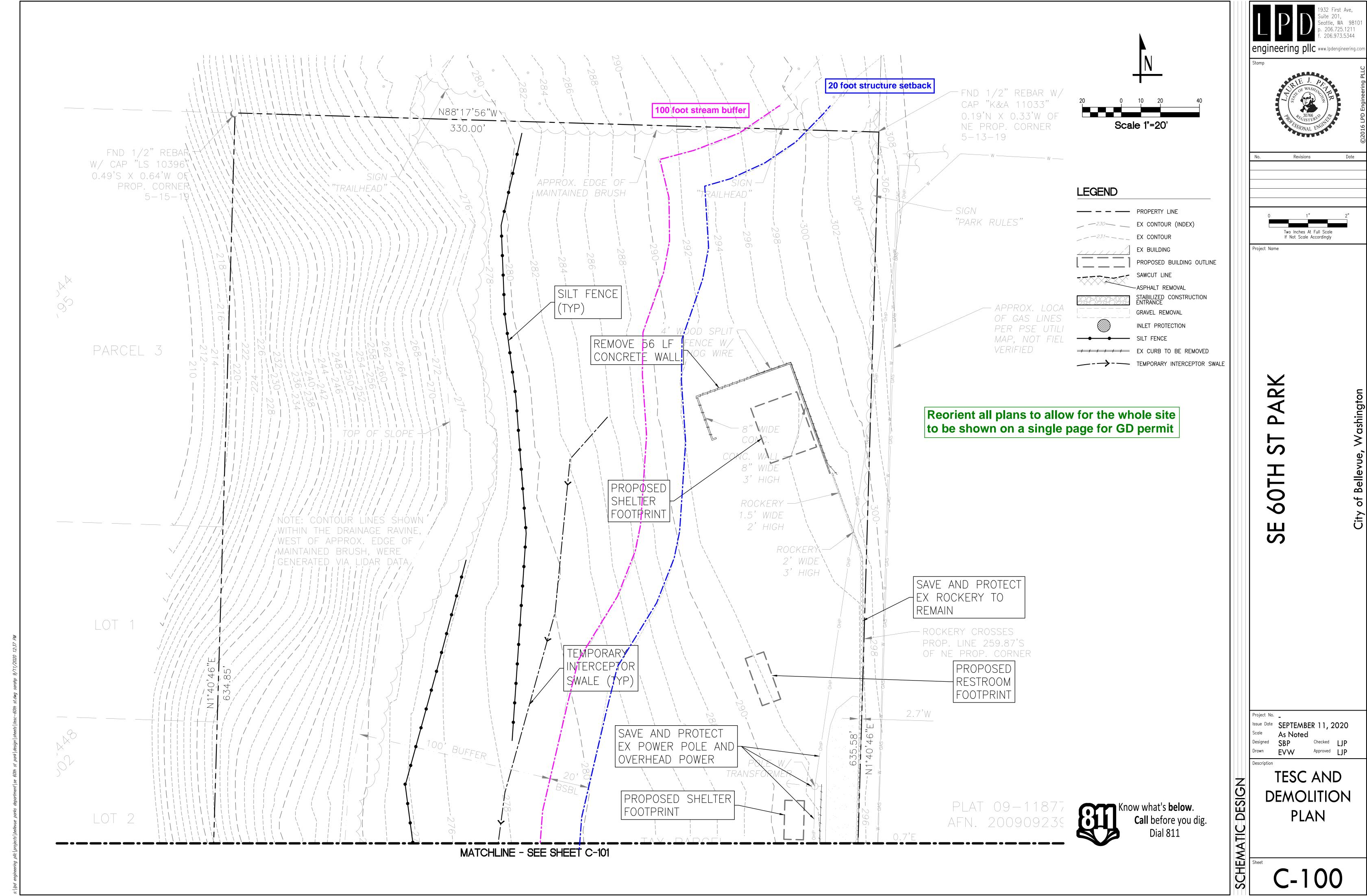
Reviewer: Carol Orr, Land Use

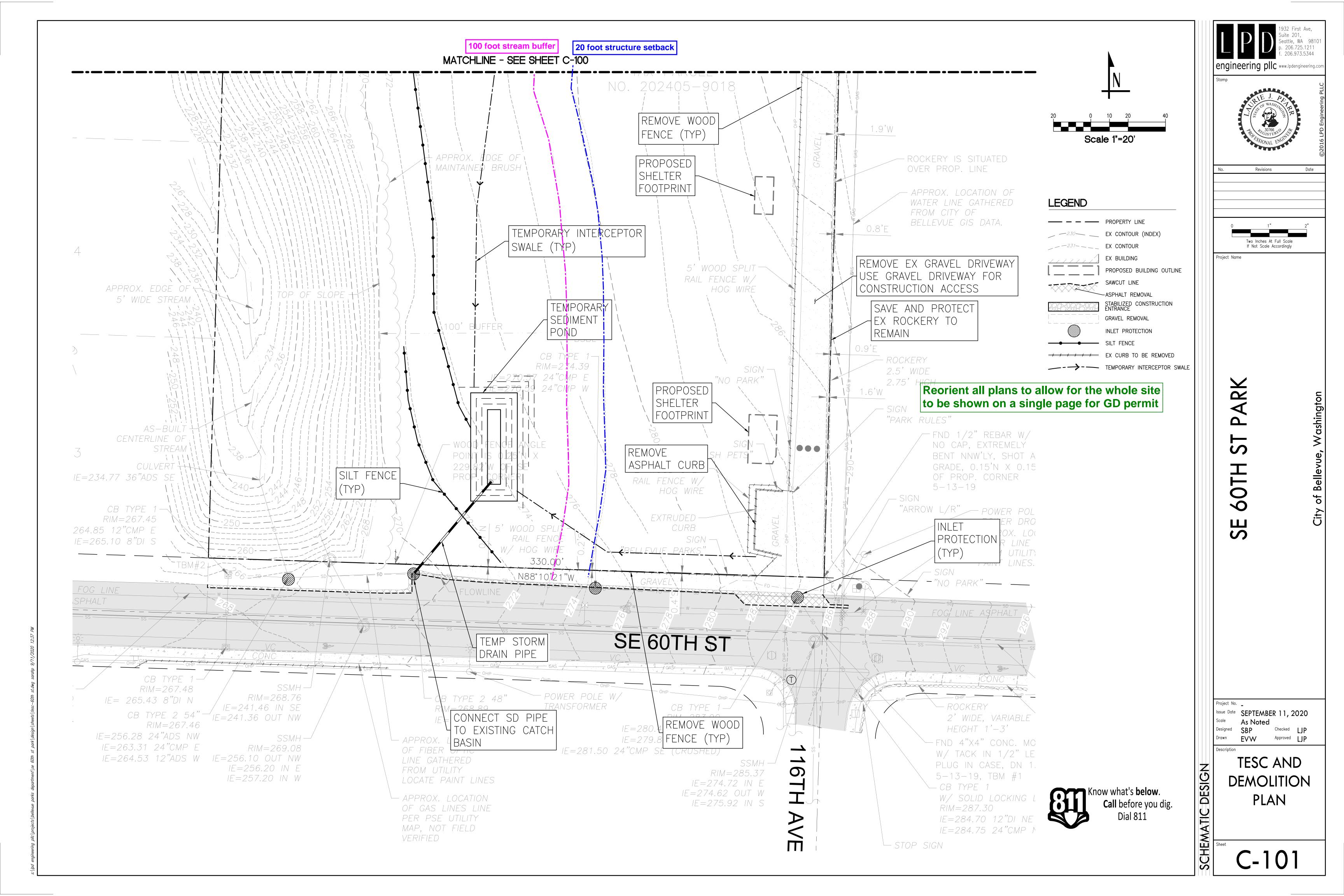
9. Pesticides, Insecticides and Fertilizers: The applicant must submit as part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

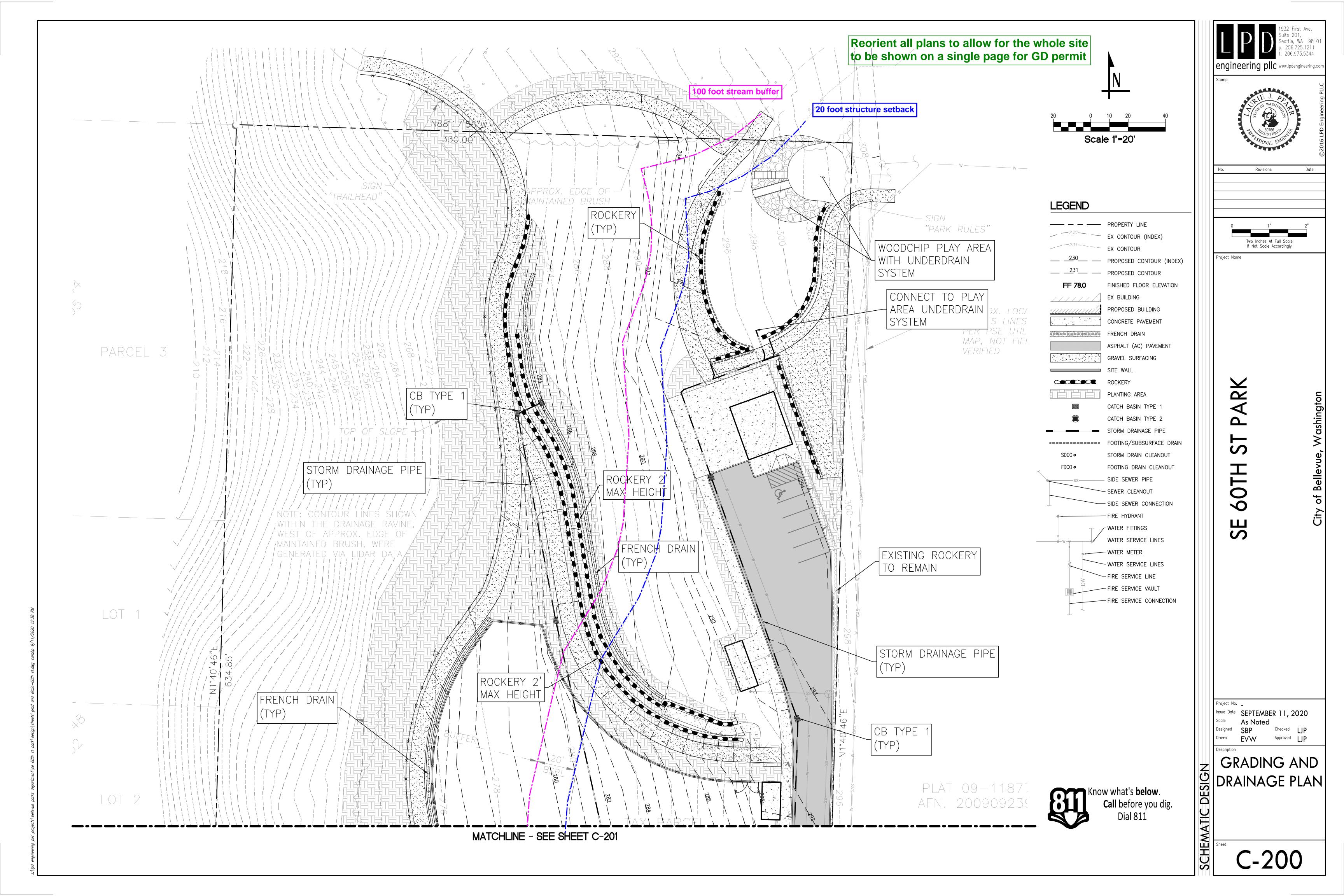
Authority: Land Use Code 20.25H.220

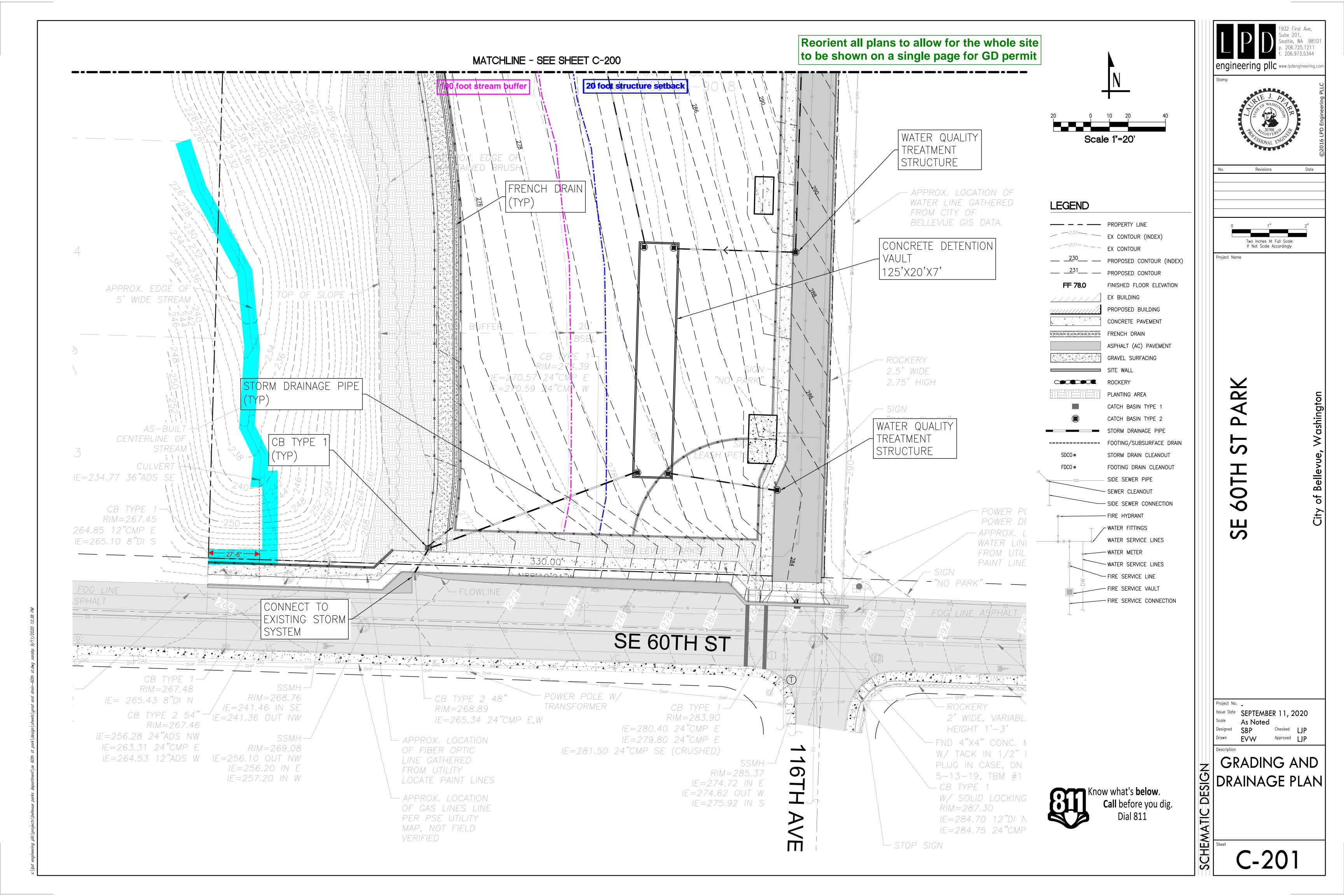
Reviewer: Carol Orr, Land Use

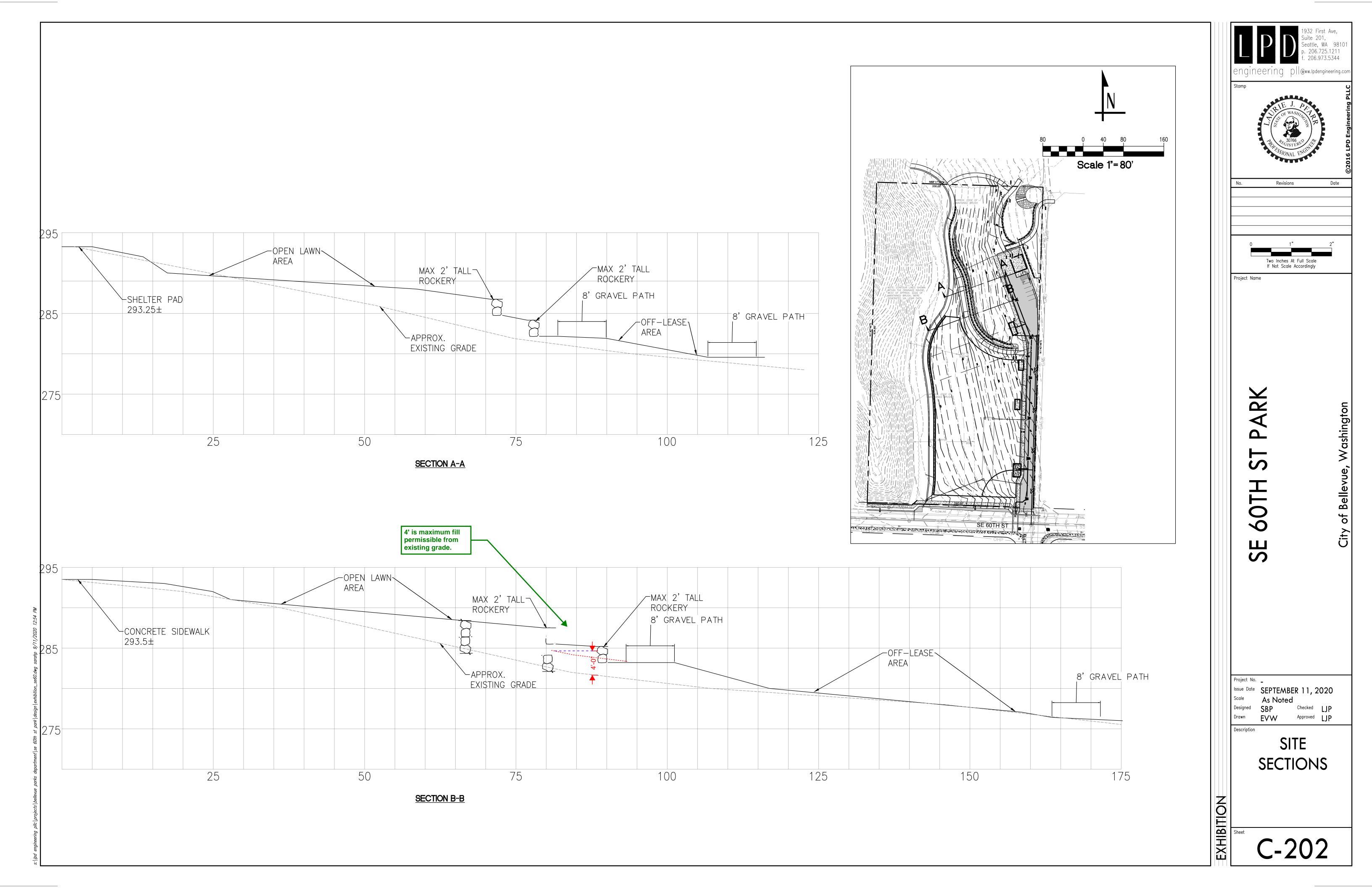
Attachment A

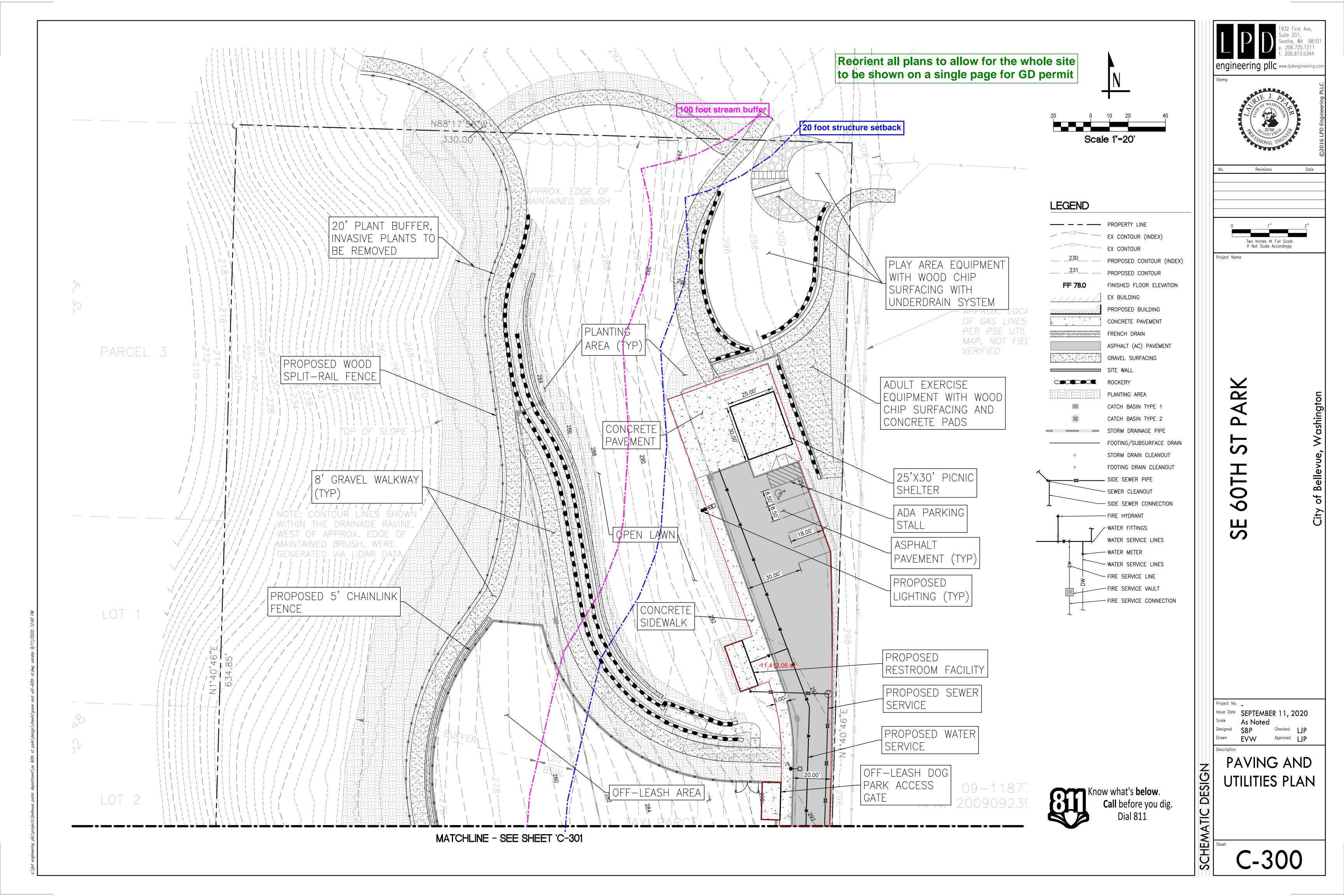


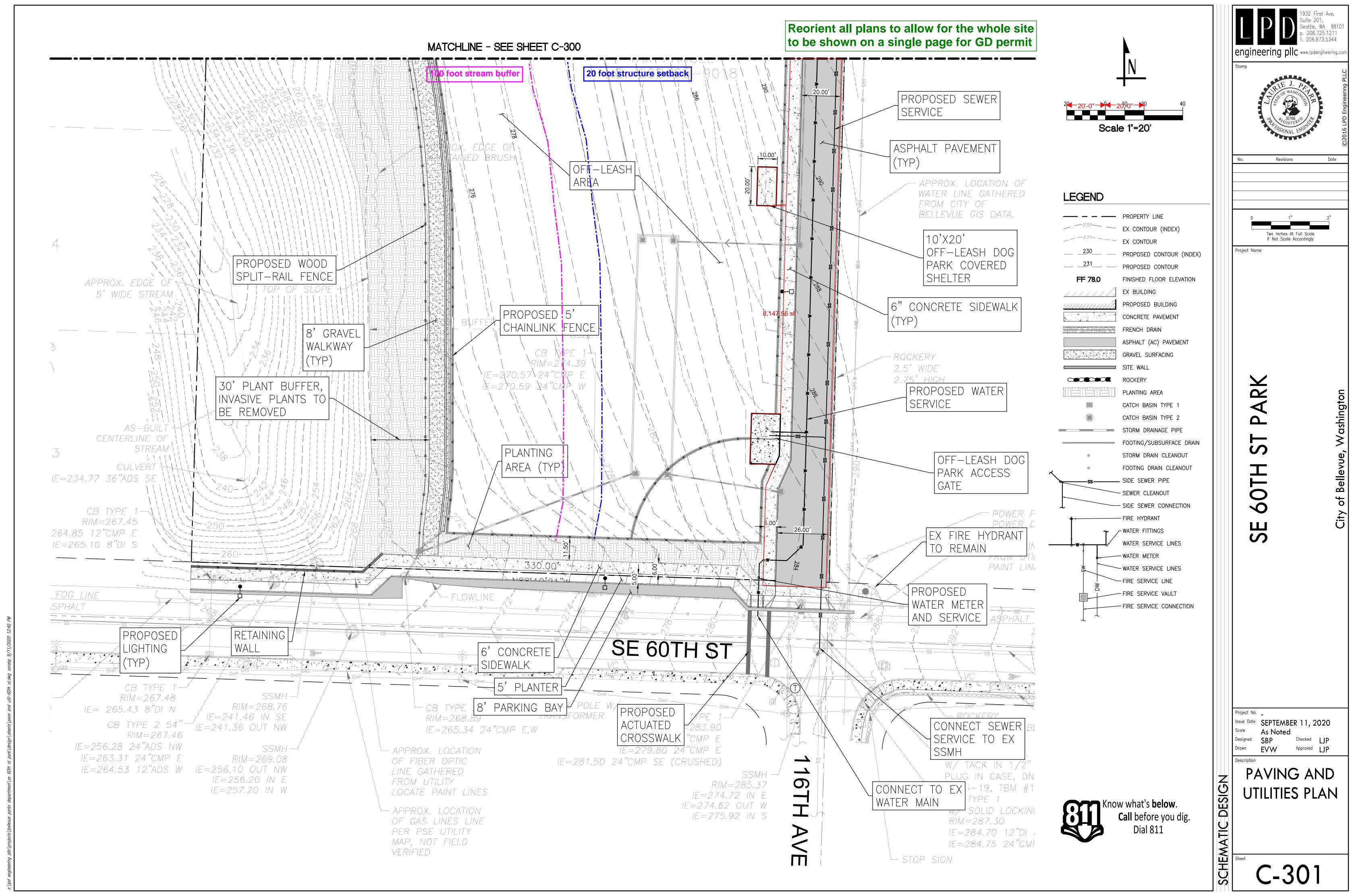


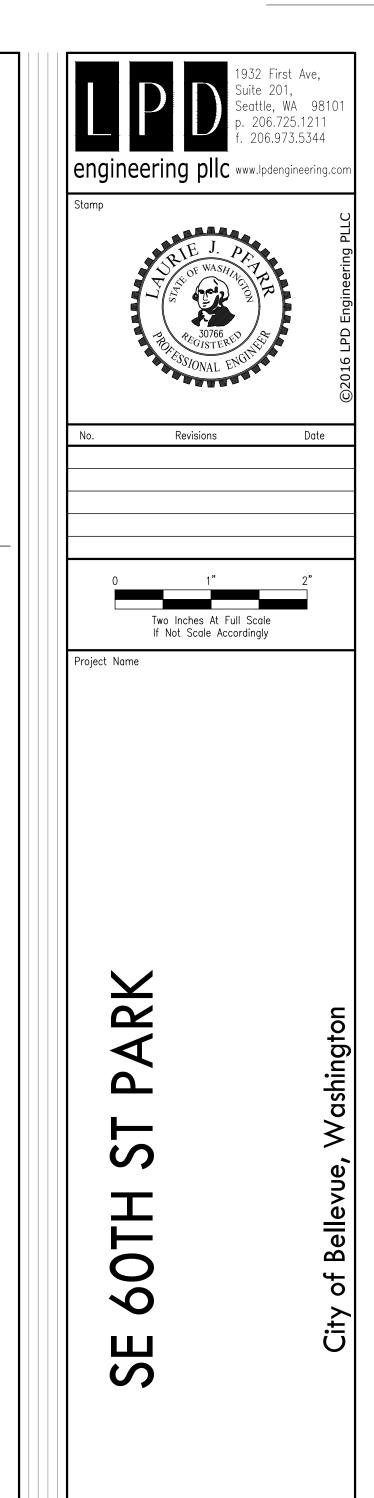


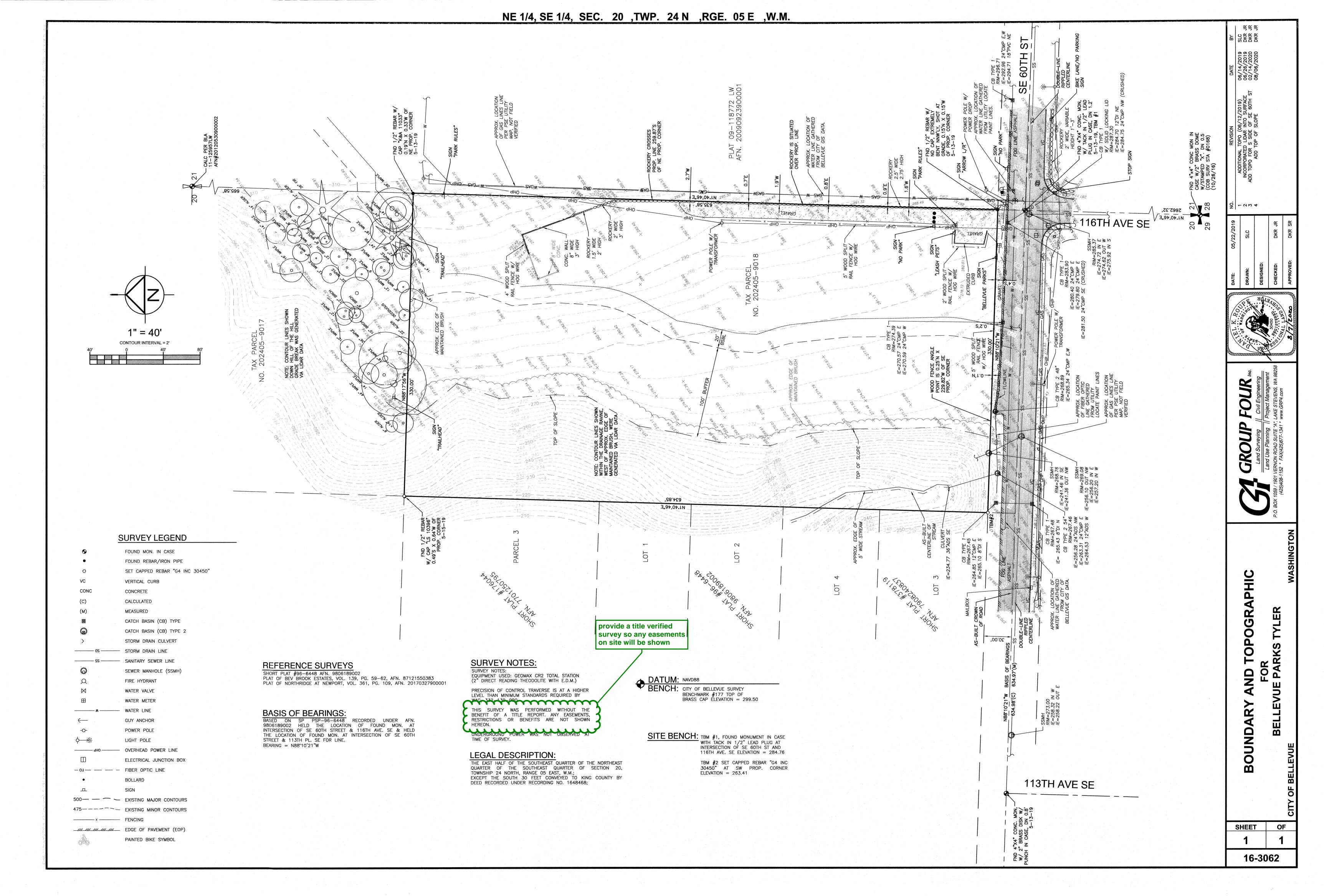




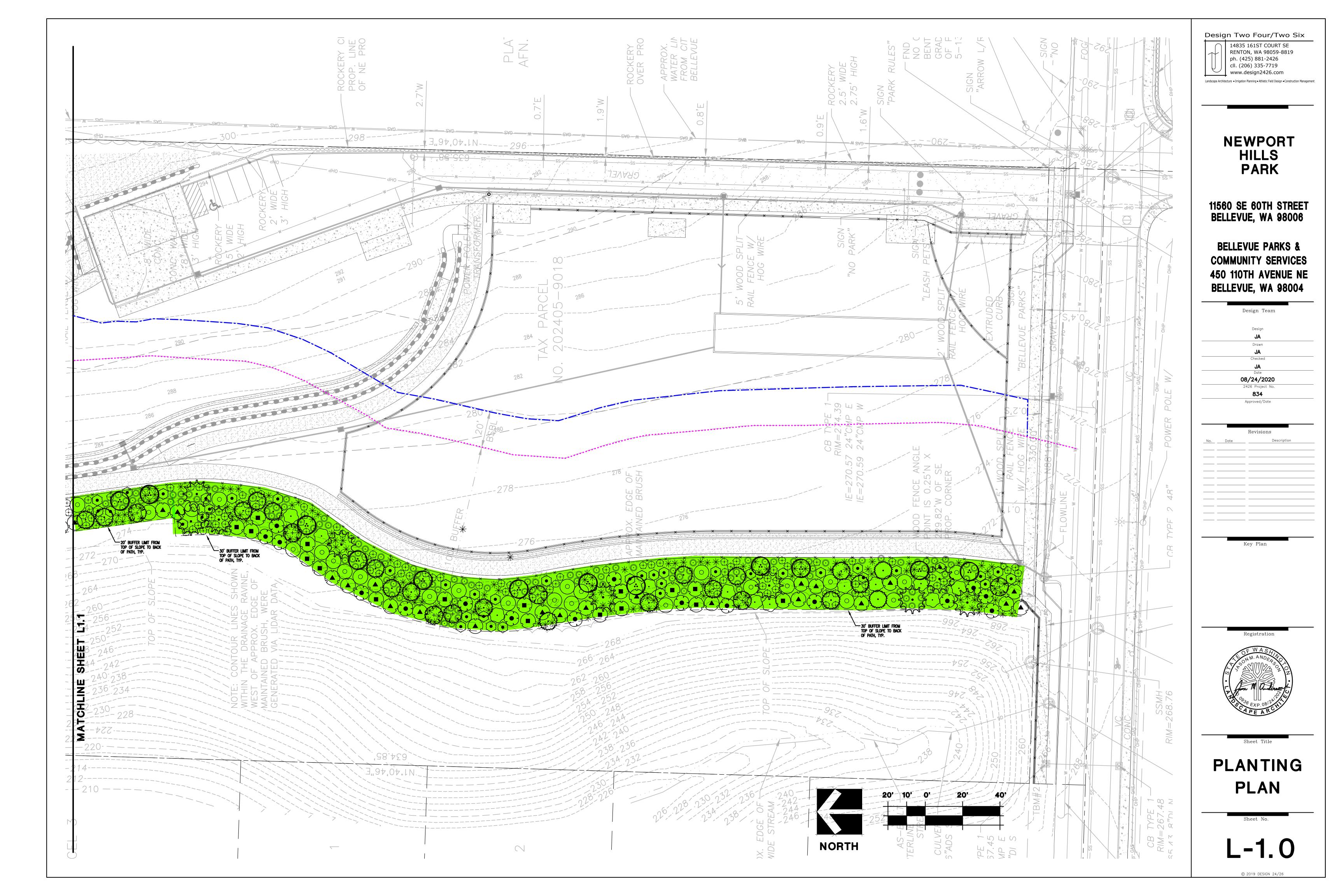








Attachment B



PLANT SCHEDULE

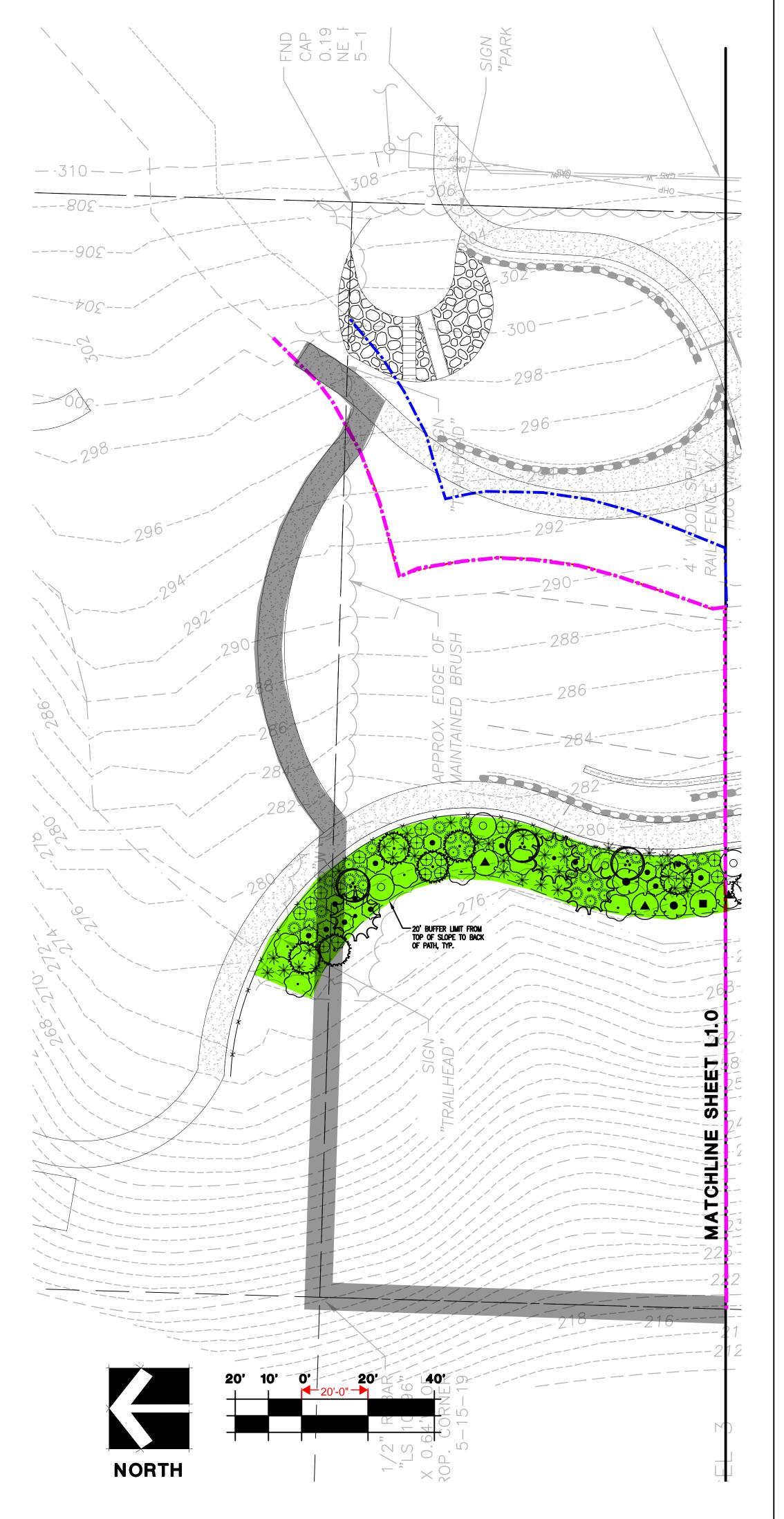
TREES	BOTANICAL / COMMON NAME	CONT	<u>SIZE</u>	QTY
\odot	ACER CIRCINATUM / VINE MAPLE	B & B	5'-7' MIN. HT.	15
Make Leave L	CHAMAECYPARIS NOOTKATENSIS 'PENDULA' / WEEPING NOOTKA FALSE CYPRESS	B & B	7'-8' MIN. HT., FULL, NOT SHEARED	24
	THUJA PLICATA / WESTERN RED CEDAR	B & B	8'-10' MIN. HT.	12
+3	TSUGA HETEROPHYLLA / WESTERN HEMLOCK	B & B	7'-8' MIN. HT.	8
<u>SHRUBS</u>	BOTANICAL / COMMON NAME	<u>SIZE</u>	FIELD3	QTY
	CORNUS STOLONIFERA / DOGWOOD	5 GAL		24
	CORNUS STOLONIFERA 'FLAVIRAMEA' / YELLOWTWIG DOGWOOD	5 GAL		18
	GAULTHERIA SHALLON / SALAL	1 GAL		119
MANUTE STATES	MAHONIA REPENS / CREEPING MAHONIA	1 GAL		149
\bullet	MYRICA CALIFORNICA / PACIFIC WAX MYRTLE	5 GAL		18
*	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	2 GAL		185
\bigcirc	RIBES SANGUINEUM / RED FLOWERING CURRANT	2 GAL		28
\bigcirc	ROSA RUGOSA / RUGOSA ROSE	2 GAL		18
\odot	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL		53

Notes for GD permit:

Provide a symbol for the existing trees within this area. This will assist with the placement of additional trees.

Utilize the attached critical areas handbook for information on distances between trees and species suggestions.

The species shown above are native. Verification will be needed as to whether they will thrive in the understory of the existing trees. Site does have good southern light, North side of lot is wetter, and may need different species that will tolerate more moist soils.



Design Two Four/Two Six

14835 161ST COURT SE RENTON, WA 98059-8819

ph. (425) 881-2426 cll. (206) 335-7719 www.design2426.com

NEWPORT HILLS PARK

11560 SE 60TH STREET BELLEVUE, WA 98006

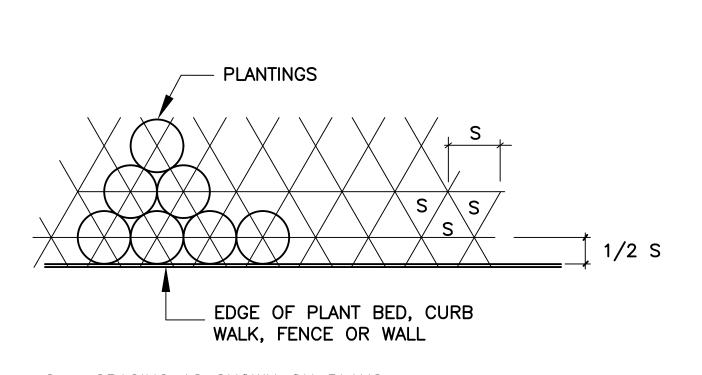
BELLEVUE PARKS & COMMUNITY SERVICES 450 110TH AVENUE NE BELLEVUE, WA 98004

Design Team
Design
JA
Drawn
JA
Checked
JA
Date
08/24/2020
2426 Project No.
834
Approved/Date

No.	Date	Description



PLANTING PLAN & SCHEDULE

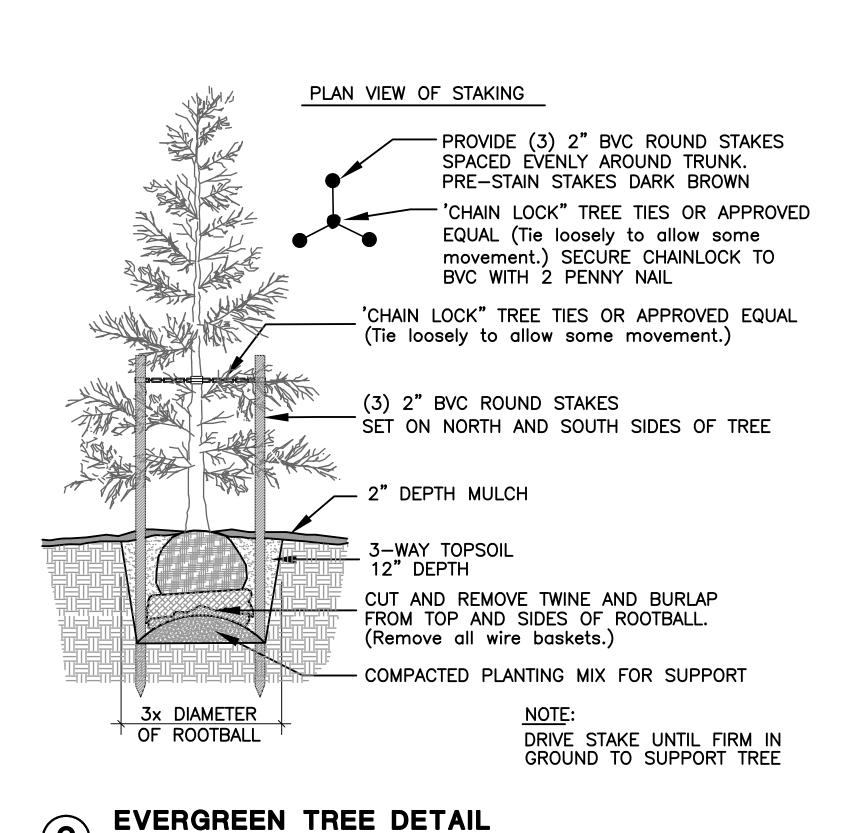


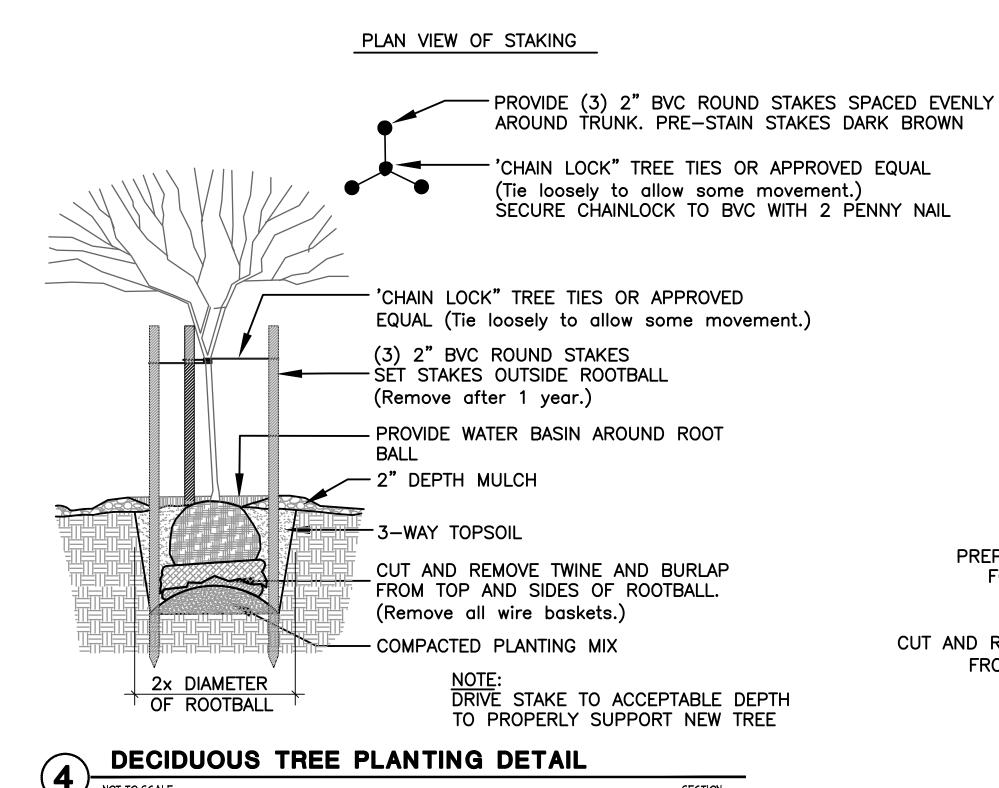
SHRUB/GROUNDCOVER 2" DEPTH MULCH - FINISH GRADE ROOTBALL -DEPTH -3-WAY TOPSOIL COMPACTED PLANTING MIX 2x DIAMETER
OF ROOTBALL

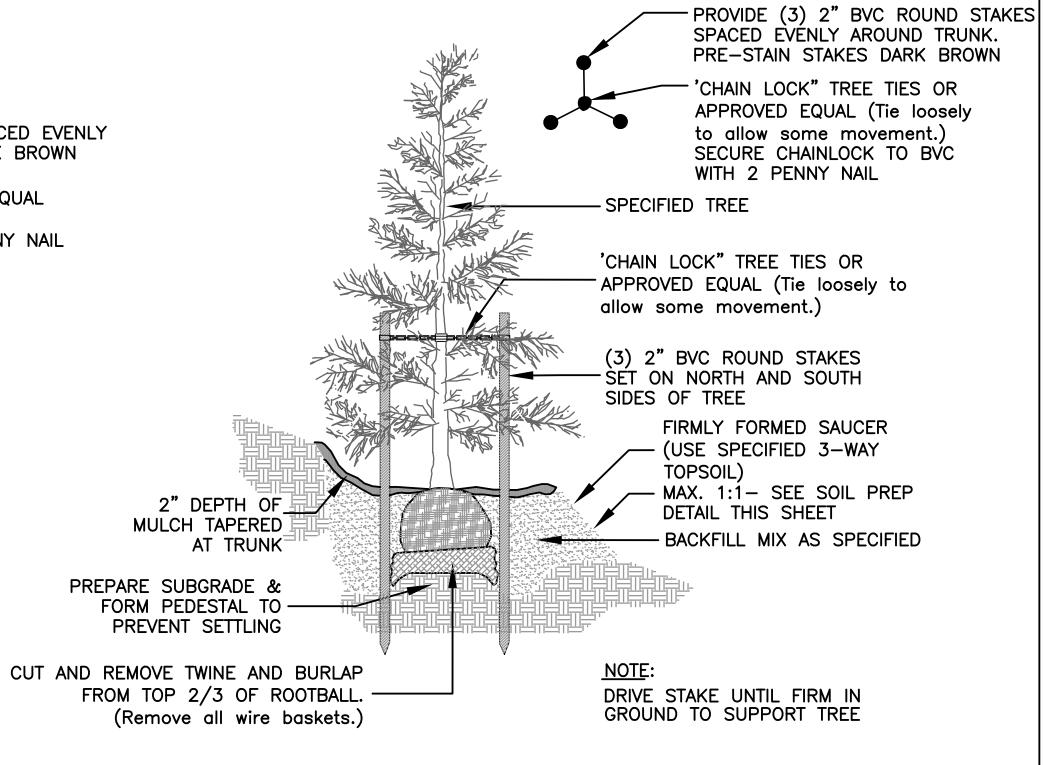
S = SPACING AS SHOWN ON PLANS

GROUNDCOVER PLANT SPACING

SHRUB/GROUNDCOVER PLANTING DETAIL







PLAN VIEW OF STAKING

TREE PLANTING ON SLOPE

14835 161ST COURT SE RENTON, WA 98059-8819 ph. (425) 881-2426

Landscape Architecture • Irrigation Planning • Athletic Field Design • Construction Management

Design Two Four/Two Six

cll. (206) 335-7719 www.design2426.com

NEWPORT HILLS **PARK**

11560 SE 60TH STREET BELLEVUE, WA 98006

BELLEVUE PARKS & **COMMUNITY SERVICES** 450 110TH AVENUE NE BELLEVUE, WA 98004

Design Team Drawn Checked 08/24/2020 2426 Project No. Approved/Date

Revisions

Registration

PLANTING DETAILS

© 2019 DESIGN 24/26

Attachment C

CRITICAL AREAS REPORT

Bellevue Parks Department

11560 SE 60th, Bellevue WA 98006

Prepared by:

Hannah Belloli Staff Scientist

Grant Gilmore, Senior Project Scientist

Skillings Connolly, Inc.

June 2019



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EXECUTIVE SUMMARY

The City of Bellevue (Client) is preparing documentation for land use management purposed on Tax Parcels No. 2024059018 (Property). The Property is a total of 4.81 acres and is located at 11560 SE 60th, Bellevue WA 98006. This report and site visit was conducted to determine the extent and classification of any wetlands on the property and to address stream typing criteria for the existing stream. It was determined that there are no wetlands located within the property boundaries. A stream (part of the Cedar River Watershed) was identified and runs along the western edge of the property boundary. This stream is classified as a Type U stream by the Washington State Department of Natural Resources (Appendix VIII – FPARS Map). At this time, City of Bellevue does not have Critical Areas Ordinance for Type U streams. After stream typing is determined to match the Cities Critical Areas Ordinance a definitive buffer can be applied. The stream buffer can vary between a 100-foot buffer for a Type F stream to 25 feet for a Type O stream.

INTRODUCTION

Project Description

This Critical Areas Report has been prepared to assist the Bellevue Parks Department to identify potential wetlands and streams for all future land use plans. The information presented in this report is meant to be used to support the permitting requirements for future proposed projects. The site is located at 11560 SE 60th, Bellevue WA 98006 (Appendix I – Vicinity Map). The Public Land Survey System (PLSS) location (township/range/section) is T24N/R05E/S20: latitude 47.54967 N and Longitude -122.18677 W. Skillings Connolly, Inc., Senior Project Scientist Grant Gilmore conducted a site visit on May 9th, 2019 to evaluate and delineate any wetlands in or adjacent to the project area and to assess any streams on or near the property.

Project site

The property is a total of 4.81 acres and is located in Bellevue, Washington at 11506 SE 60th St., Bellevue, Washington 98006 (Appendix I Vicinity Map). The property consists of one stream along the western edge of the property boundary.

The area consists of steep slopes on the western side of the property. The area is characterized by a vegetative community dominated by Salmonberry (*Rubus spectabilis*), Oregon Grape (*Mahonia aquifolium*), Western Red Cedar (*Thuja plicata*), Sword fern (*Polystichum munitum*), Salal (*Gaultheria shallon*), Douglas Fir (*Pseudotsuga menziesii*), Snowberry (*Symphoricarpos albus*), Herb Robert (*Geranium robertianum*), Indian Plum (*Oemleria cerasiformis*), Vine Maple (*Acer circinatum*), Lady fern (*Athyrium filix-femina*), Giant Horsetail (*Equisetum telmateia*), black hawthorn (*Crataegus douglasii*) and Himalayan Blackberry (*Rubus armeniacus*).

Soils for the Project area includes Alderwood gravelly sandy loam, 8-15% slopes and Alderwood and Kitsap, very steep (Appendix VI – Natural Resource Conservation Services Soils Survey). Average annual rainfall for Bellevue is listed at approximately 42 inches a year (NOAA, 2018).

METHODS

Wetland Identification, Delineation, and Classification

Wetlands are delineated using the methods originally described in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and updated for the Washington State in 2014 (Hruby, 2014). An additional supplement for Western Mountains, Valleys, and Coast regions (U.S. Army Corps of Engineers, 2010) is used to classify and evaluate hydrophytic vegetation indicators, hydric soil indicators, and wetland hydrology indicators within the Project boundaries.

A walking survey of the entire property was conducted to locate all potential wetlands within the property boundaries. In general, a wetland delineation consists of three main tasks: (1) Assessing vegetation, soil, and hydrology characteristics to identify areas meeting the three wetland indicators that define a wetland unit. (2) mark wetland boundaries (flagging and lath), and (3) locating delineated boundaries using conventional survey methods. Data is collected and recorded using the Wetland Rating Summary and wetland determination forms provided by Hruby (2014) and the U.S. Army Corps of Engineers (2010; Appendix II – Wetland Data forms).

Agency Coordination and Pre-Field review of Information

The following data sources were reviewed for information on vegetation patterns, topography, drainage, and potential or known wetlands or wildlife habitats in the project vicinity:

- National Wetland Inventory (NWI: Appendix II)
- U.S. Geological Survey (USCG) 7.5 minute topographic map (Appendix III)
- Natural Resources Conservation Services (NRCS) Soils Survey Map (Appendix IV)
- Correspondence with U.S. Fish and Wildlife Services (IPaC Report; Appendix X)
- WDFW Priority Habitat and Species (PHS; Appendix V)
- Forest Practices and Application Mapping Tool (FPAR's Report; Appendix VI)
- WDFW SalmonScape Map (Appendix VIII)
- Ecology Water Quality: (Appendices IX)

RESULTS AND DISCUSSION

Based on information gathered from the National Wetlands Inventory and the site visit, no wetlands were identified on the project site. A site visit was performed by Grant Gilmore, Senior Project Scientist on May 9th, 2019. During the site visit Grant recorded vegetation, soil types, and indicators of hydrology. Representative site photographs were taken and geotagged for reference (Appendix IX). Due to the current use of the site as a public park, the majority of the property is covered in grass. This area is highly disturbed due to park activities and frequent mowing. This high use area showed no signs of depressional or sloped wetlands. The western portion of the property consists of steep slopes which are heavily vegetated with native plant species. The sloped area along the western portion of the property was traversed in a "Z" pattern from north to south. Hydrologic and vegetative indicators associated with wetlands were not observed. At the bottom of the slope a stream was identified and flows from south to north. The stream meanders beyond the property boundary onto the adjacent properties to the west. This stream contains typical riparian characteristics but did not show any signs of obvious wetlands along its banks. It is possible wetlands are present, but if so, not on the portion of the

stream located within the property boundary.

Stream Analysis

One stream was identified during the site visit which runs along the western edge of the property, located to the south. Based on online research using the Forest Practices and Application Mapping database (FPARS) and SalmonScape, one streams was indicated on the western boundary of the proposed project area. DNR lists the stream in their Forest Practices and Application Mapping database (Appendix VIII) as unidentified (U) for fish bearing streams. Buffer requirements can vary between 100 and 25 feet. At this time, the City of Bellevue does not have Critical Areas Ordinance for Type U streams. After stream typing is determined to match the Cities Critical Areas Ordinance Code, a definitive buffer can be applied. The stream buffer can vary between a 100-foot buffer for a Type F stream to 25 feet for a Type O stream under current code references.

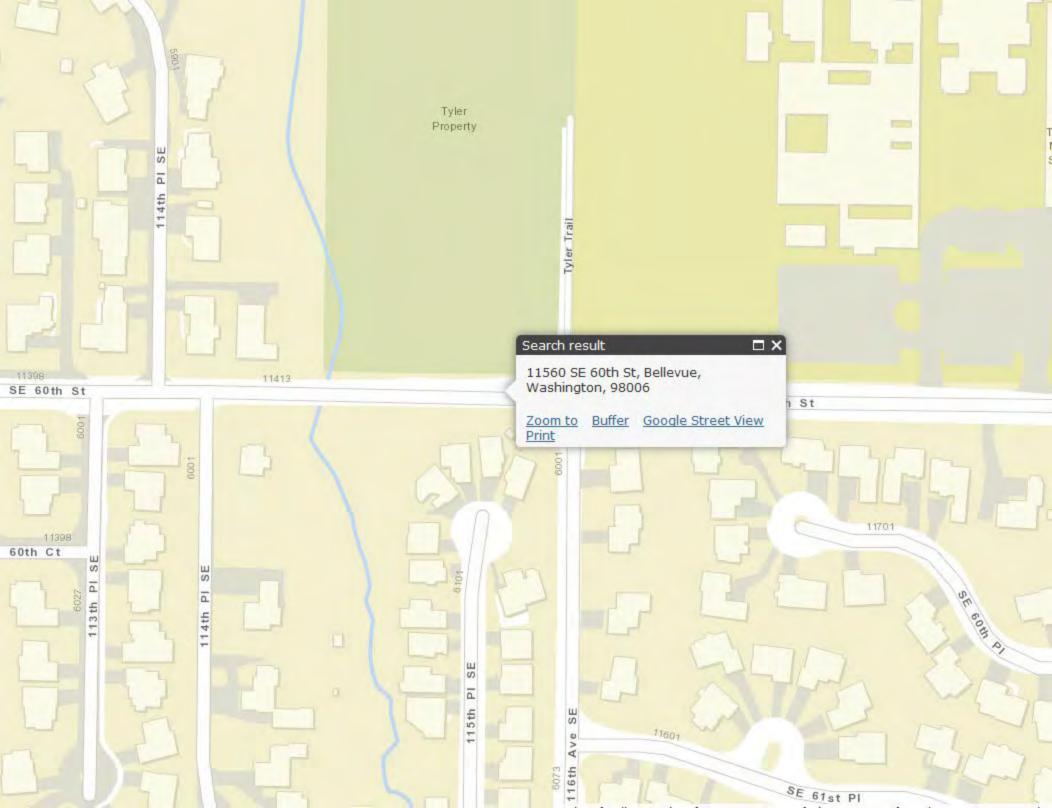
CONCLUSION

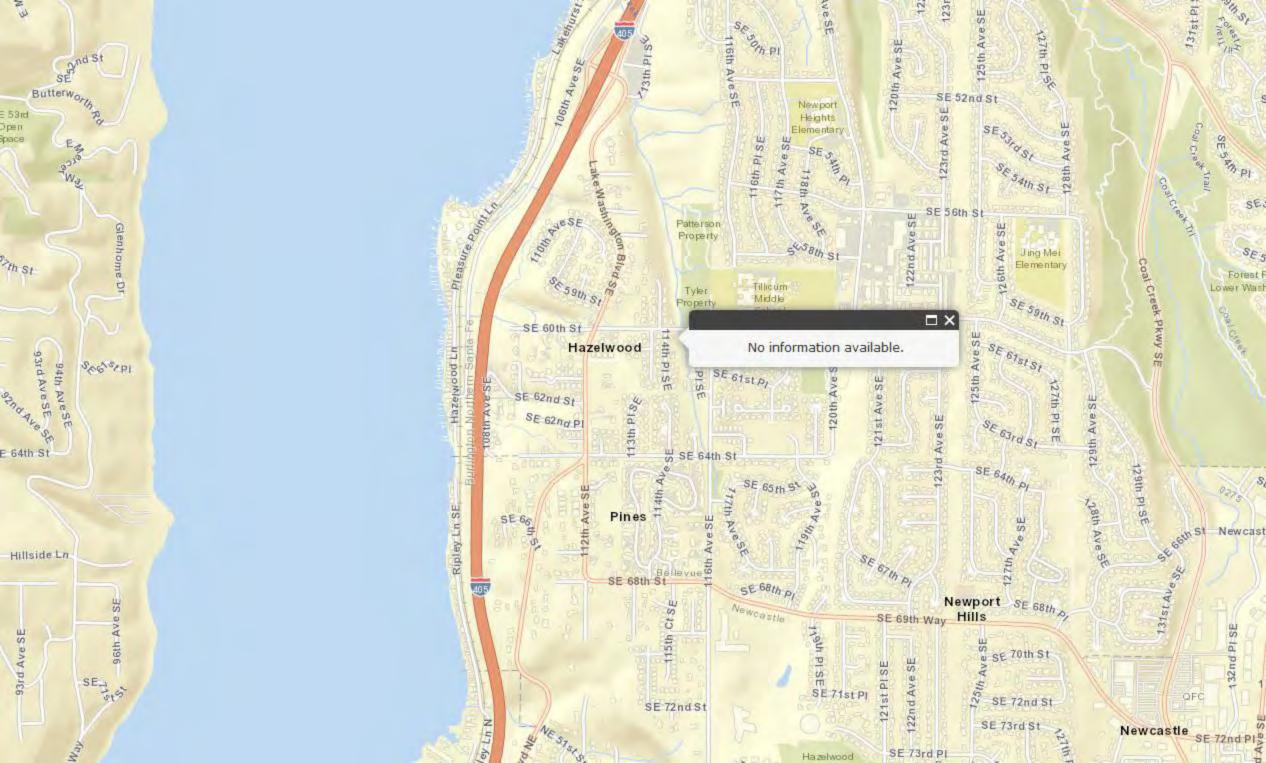
In conclusion, no wetlands were identified within the project boundary. Cedar Creek runs along the boundary of the proposed project site. Cedar Creek will require an unknown buffer which will need to be reviewed by the City of Bellevue Planning Department. The buffer requirements can vary between 25 and 100 feet based on its identifier. If there are impacts from future proposed projects to the stream and its associated buffers a stream buffer mitigation plan will be required and submitted in accordance with City of Bellevue Critical Areas Ordinance. The final authority for the designation of the stream within the project area rests with City of Bellevue and other appropriate agencies.

RESOURCES

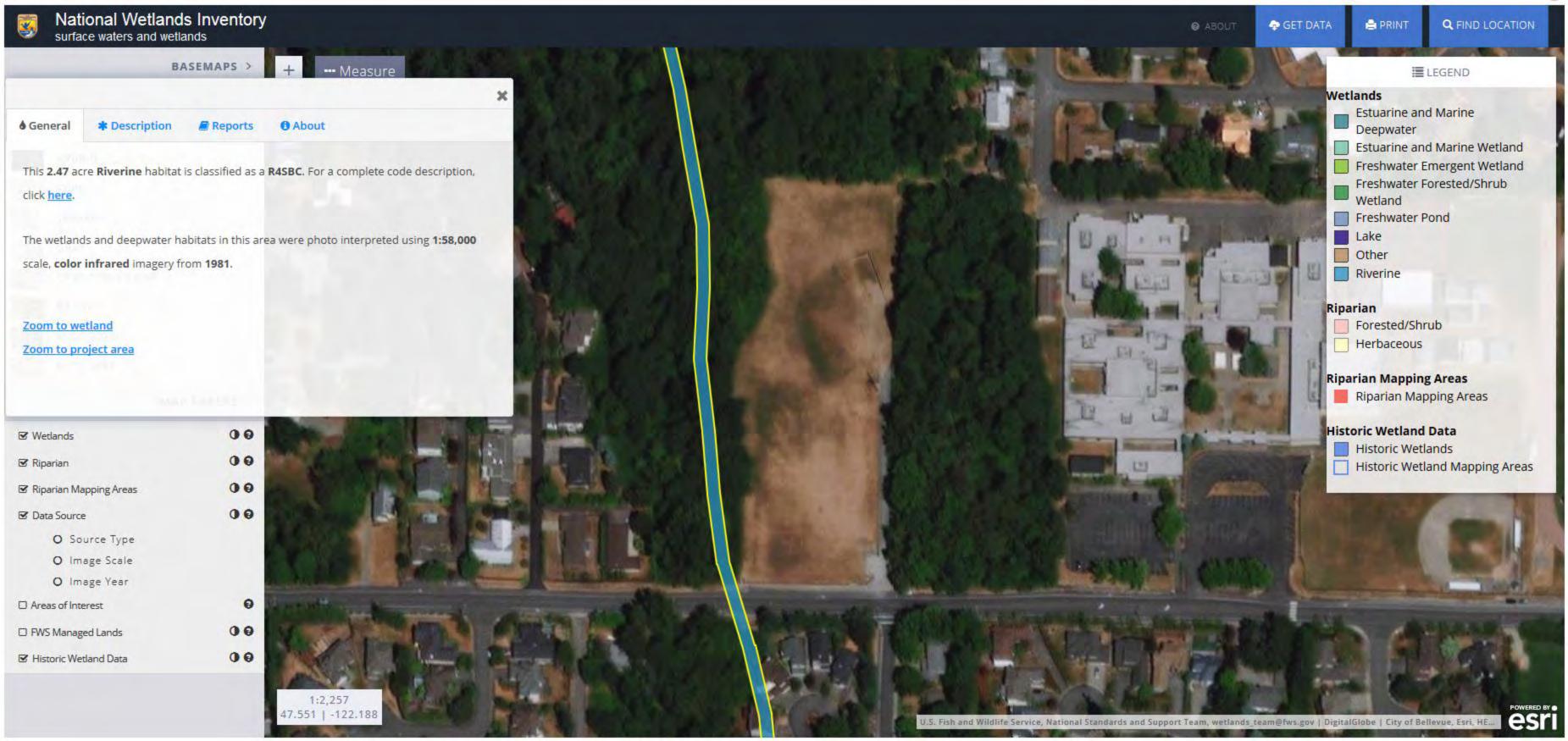
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Appendix I Vicinity Maps

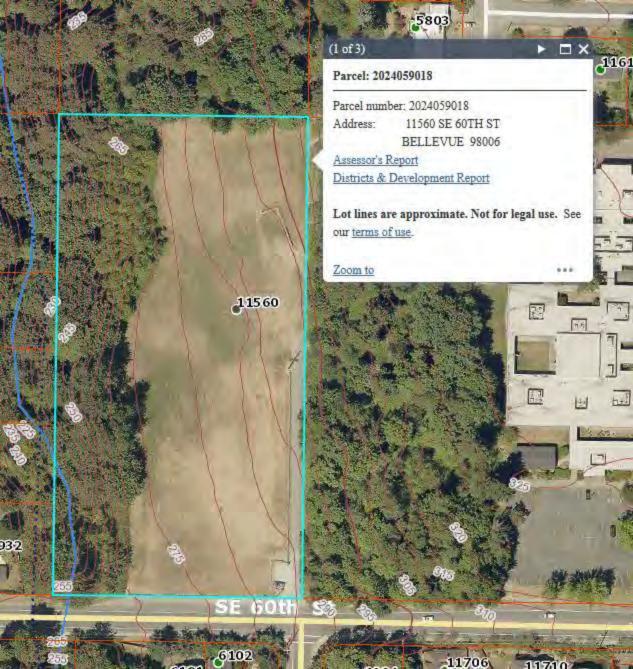


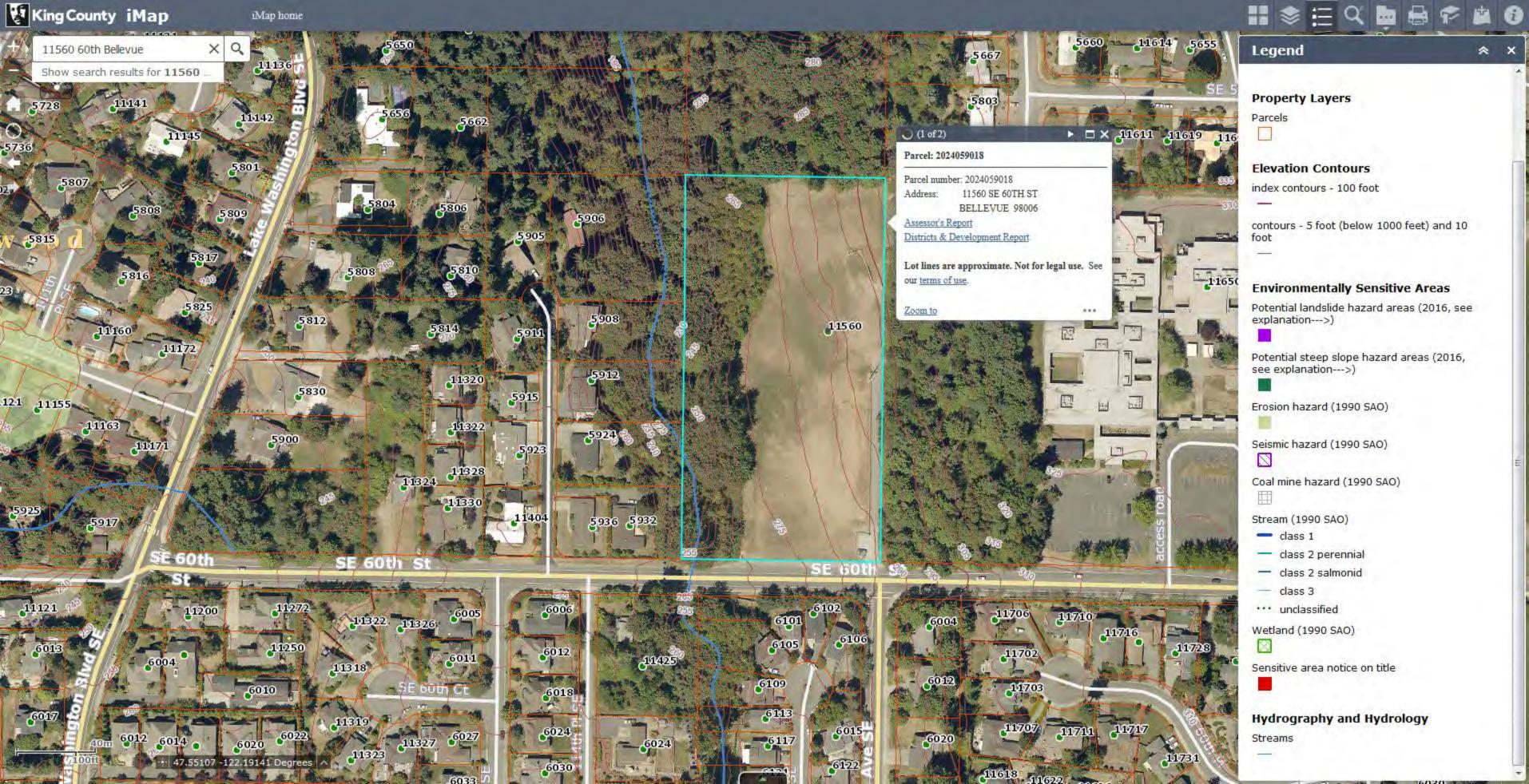


Appendix II NWI Map



Appendix III
Topographic Map





Appendix IV

NRCS Map



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

Special Point Features

Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Miscellaneous Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: King County Area, Washington Survey Area Data: Version 14, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Aug 31, 2013—Oct 6. 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
AgC	Alderwood gravelly sandy loam, 8 to 15 percent slopes	10.9	64.8%	
gD Alderwood gravelly sandy loam, 15 to 30 percent slopes		1.4	8.4%	
AkF	Alderwood and Kitsap soils, very steep	4.1	24.6%	
AmC Arents, Alderwood material, 6 to 15 percent slopes		0.4	2.2%	
Totals for Area of Interest		16.8	100.0%	

Appendix V
PHS Map

SOURCE DATASET: PHSPlusPublic Query ID: P190613100054

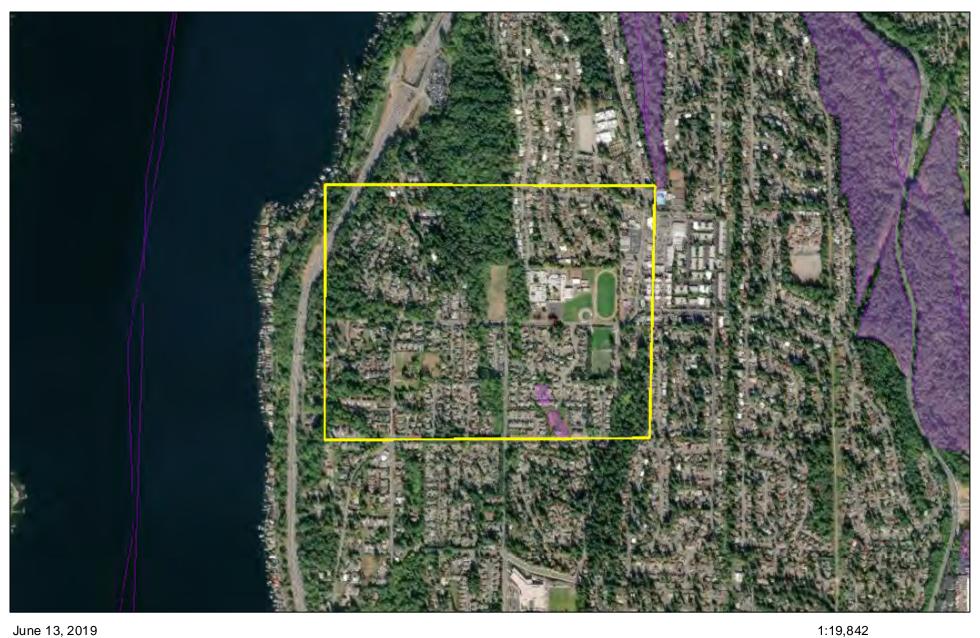
REPORT DATE: 06/13/2019 10.01

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to vraition caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

06/13/2019 10.01

WDFW Test Map





Appendix VI FPARS Map

Appendix VII
Site Photographs

Critical Areas Photo Exhibit



Western Slope Facing South from property corner.



Western Slope Facing South from property corner.



Steep slopes facing south, stream at toe of slope out of property boundary.



Facing east, slope consists of upland native vegetation.

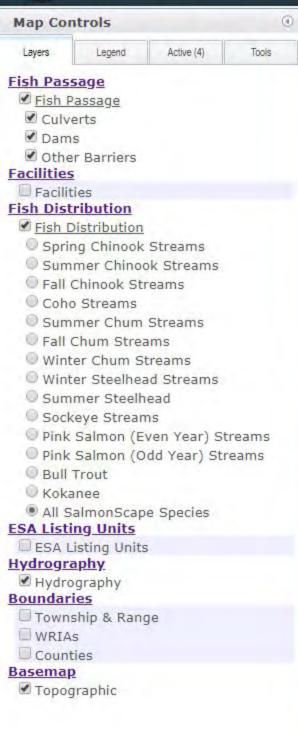


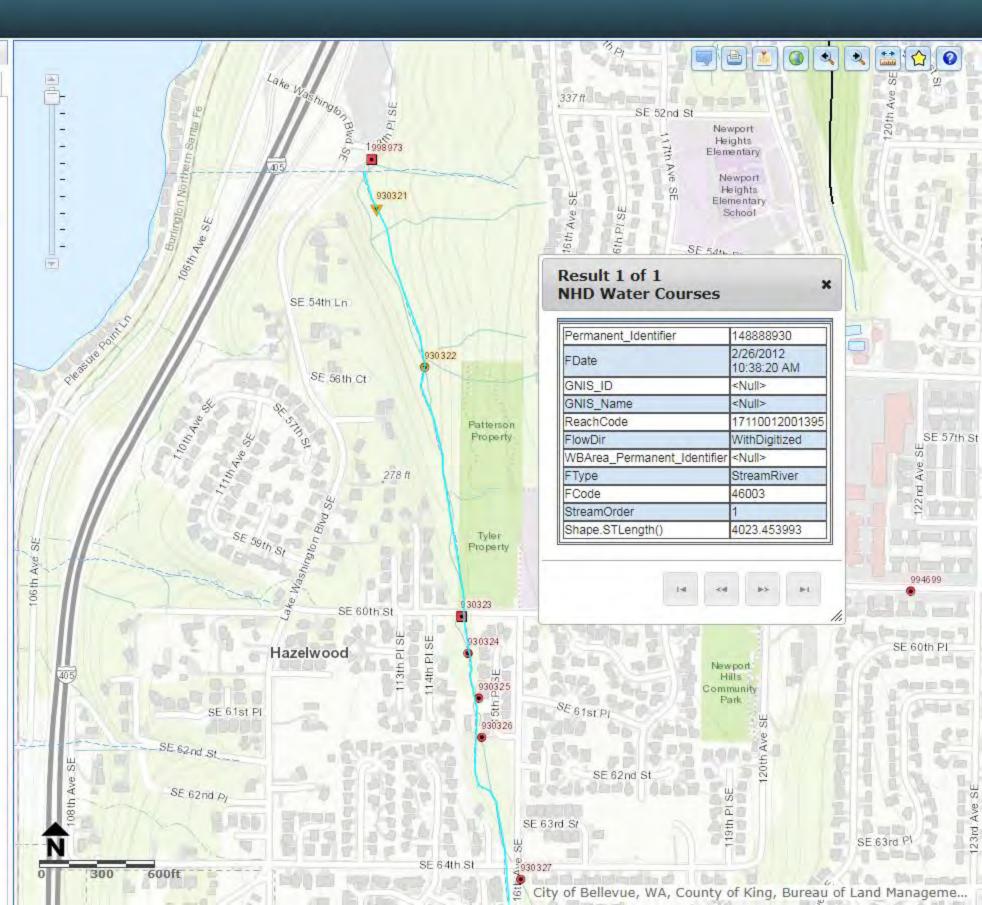
Slope consisted of native upland vegetation.



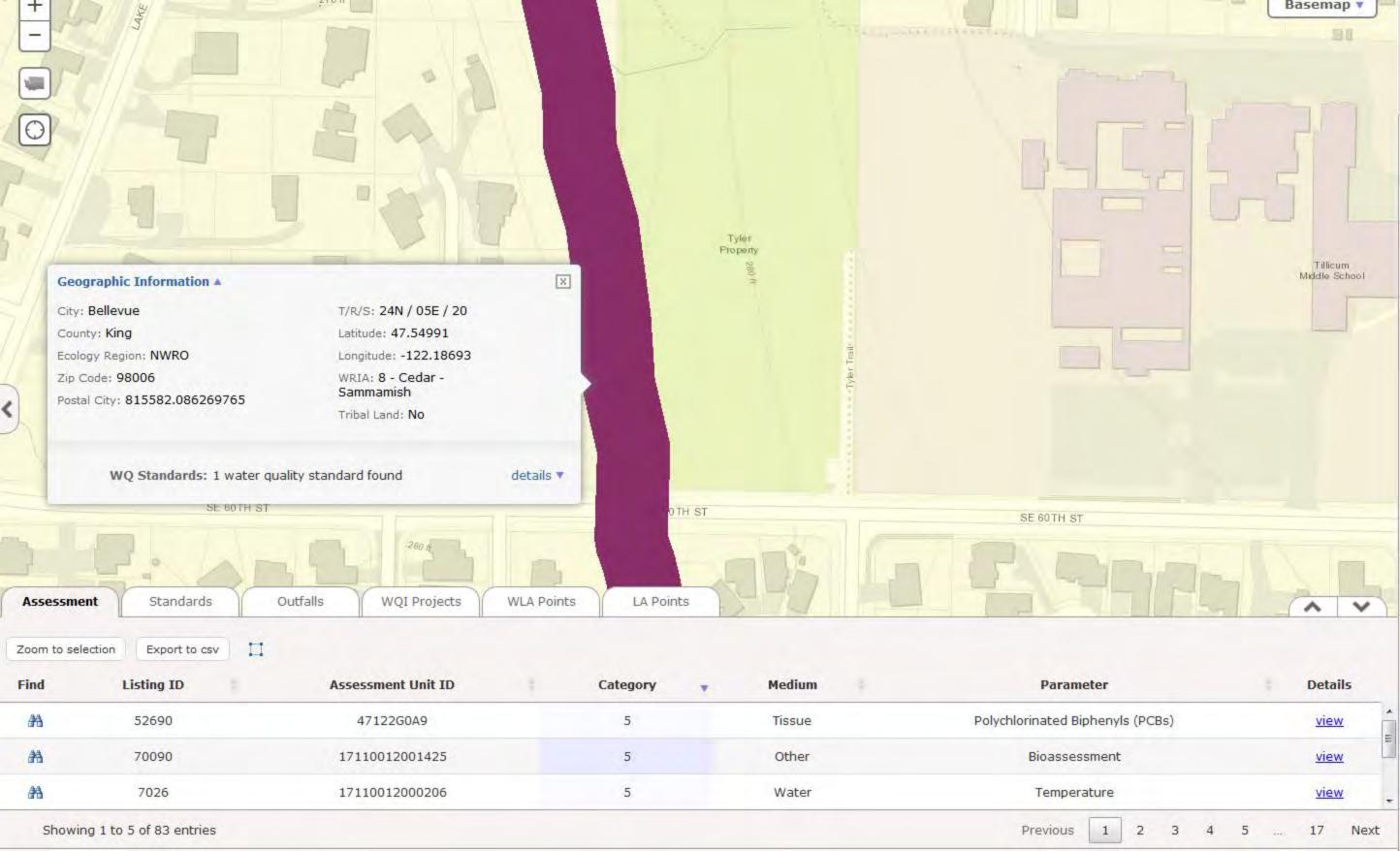
Appendix VIII
SalmonScape

SalmonScape





Appendix IX
Water Quality Map



Appendix X

IPaC Data



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish And Wildlife Office 510 Desmond Drive Se, Suite 102 Lacey, WA 98503-1263 Phone: (360) 753-9440 Fax: (360) 753-9405

http://www.fws.gov/wafwo/



In Reply Refer To: May 14, 2019

Consultation Code: 01EWFW00-2019-SLI-0986

Event Code: 01EWFW00-2019-E-01985 Project Name: 11560 SE 60th, Bellevue WA

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website: http://wdfw.wa.gov/mapping/phs/ or at our office website: http://wdfw.wa.gov/mapping/phs/ or at our office website: http://wdfw.wa.gov/wafwo/species_new.html. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at http://www.fws.gov/pacific/eagle/for information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: http://www.nmfs.noaa.gov/pr/laws/mmpa/.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Related website:

National Marine Fisheries Service: http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Washington Fish And Wildlife Office 510 Desmond Drive Se, Suite 102 Lacey, WA 98503-1263 (360) 753-9440

Project Summary

Consultation Code: 01EWFW00-2019-SLI-0986

Event Code: 01EWFW00-2019-E-01985

Project Name: 11560 SE 60th, Bellevue WA

Project Type: LAND - MANAGEMENT PLANS

Project Description: Wetland Delineation and Stream Type Assessment

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/47.55033849781488N122.18617682083865W



Counties: King, WA

0 = 4 = 1 10

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Wolf Canis lupus	Proposed
Population: Western Distinct Population Segment	Endangered
No critical habitat has been designated for this species.	
North American Wolverine Gulo gulo luscus	Proposed
No critical habitat has been designated for this species.	Threatened
Species profile: https://ecos.fws.gov/ecp/species/5123	

Birds

NAME STATUS

Marbled Murrelet Brachyramphus marmoratus

Threatened

Population: U.S.A. (CA, OR, WA)

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/4467

Streaked Horned Lark Eremophila alpestris strigata

Threatened

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/7268

Yellow-billed Cuckoo Coccyzus americanus

Threatened

Population: Western U.S. DPS

There is **proposed** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/3911

Fishes

NAME STATUS

Bull Trout Salvelinus confluentus

Threatened

Population: U.S.A., conterminous, lower 48 states

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8212

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix XI
Boundary & Topo Site Plan



TECHNICAL MEMORANDUM

To:

Scott Vander Hyden Capital Project Coordinator Bellevue Parks and Community Services svanderhyden@bellevuewa.gov

From: Hannah Belloli, Staff Scientist Skillings Inc. (360)491-3399 hbelloli@skillings.com

Subject: Newport Hills SE 60th Stream Typing Analysis **Client Name**: City of Bellevue Parks and Community Service

Parcel Number: 2024059018

Date: February 27, 2020

To Scott Vander Hyden,

The City of Bellevue is working to prepare documentation for land use management purposed on tax parcel number 2024059018. The property is a total of 4.81 acres and is located at 11560 SE 60th St, Bellevue, WA 98006. A stream (part of the Cedar River Watershed) was identified and runs along the western edge of the property boundary. Based on preliminary research this stream is classified as a Type U stream by the Washington State Department of Natural Resources (WDFW). At this time, City of Bellevue does not have Critical Areas Ordinance for Type U streams. Further investigation and facilitation with the WDFW area habitat Biologist occurred in order to determine the Type of stream in order to set a specific buffer per the City's ordinance.

Online research was conducted in order to determine where fish barriers are in relation to the stream and what the stream is currently mapped as (Type U). Consultation with Washing State Fish and Wildlife Area Habitat Biologist, Larry Fisher, occurred to get an official determination. Larry Fisher stated that the stream is Lakehurst Creek and has been surveyed by the WDFW fish passage team. The WDFW fish passage team determined that the stream meets the state criteria for presumption of fish use based on physical criteria for size and gradient.

Lakehurst Stream is a tributary to Lake Washington. The WDFW fish passage team has determined that the stream has potential species benefit for Coho, Steelhead, Searun Cutthroat, and Resident Trout. Although the stream is currently considered a barrier, it has the potential for species benefit and therefore is determined to be a Type F stream. Per City of Bellevue Critical Areas Ordinance Chapter 20.25H.075 the Type F stream will require a buffer of 100 feet.

In conclusion, after consultation with WDFW it was determined that Lakehurst stream is a Type F stream. The determination is due to the potential species benefit of Coho, Steelhead, Searun Cuttrhoat,

and Resident Trout. The stream will require a buffer of 100 feet per City of Bellevue Critical Areas Ordinance.

Sincerely,

Hannah Belloli

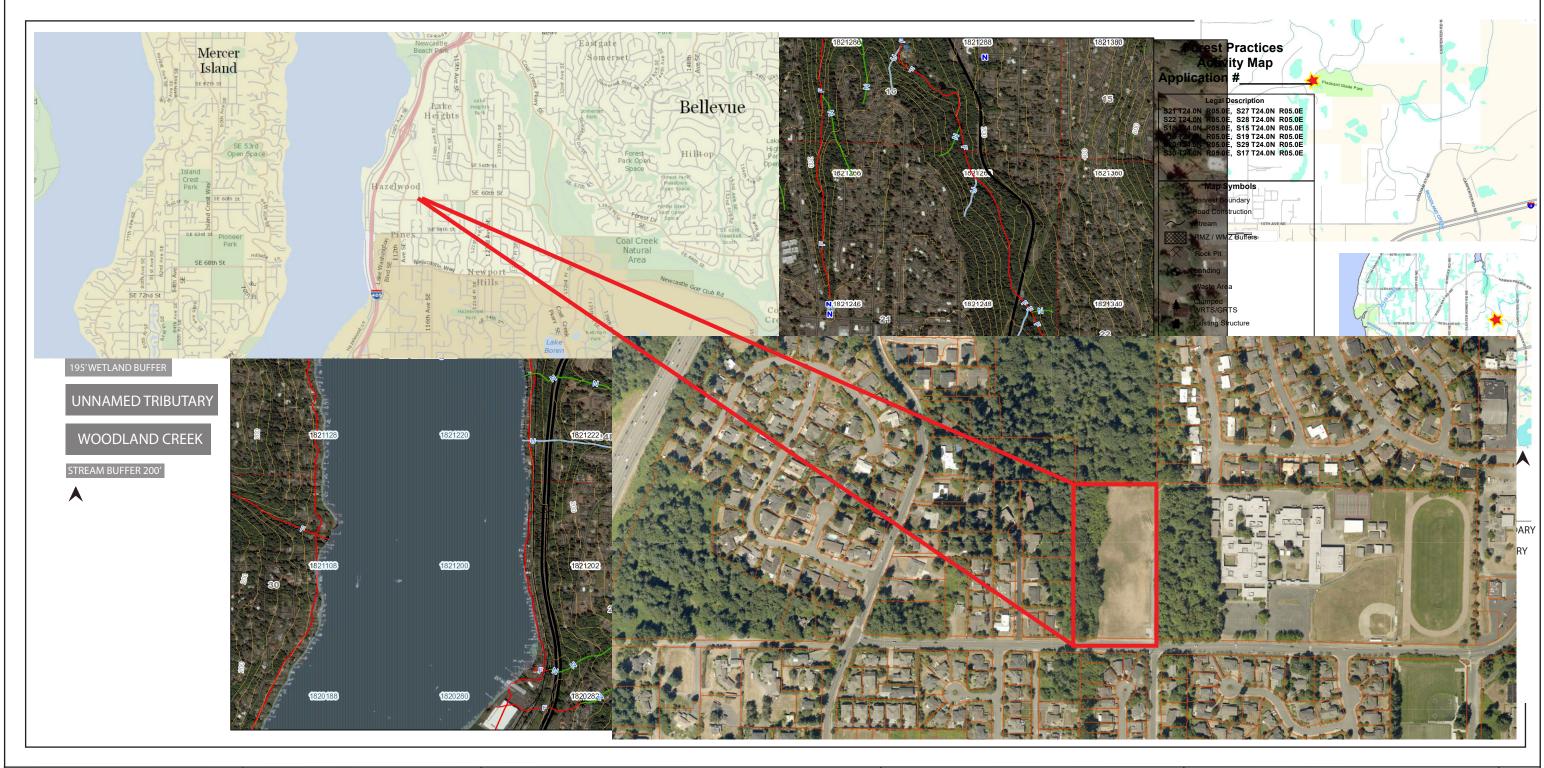
Million

Staff Scientist

APPENDIX A

Vicinity Map

SUBJECT MAPVIDITELLY (Compter on page)



NOTES:



ADDRESS / LOCATION INFO
PARCEL #2024059018
11560 SE 60th St, Bellevue, WA 98006

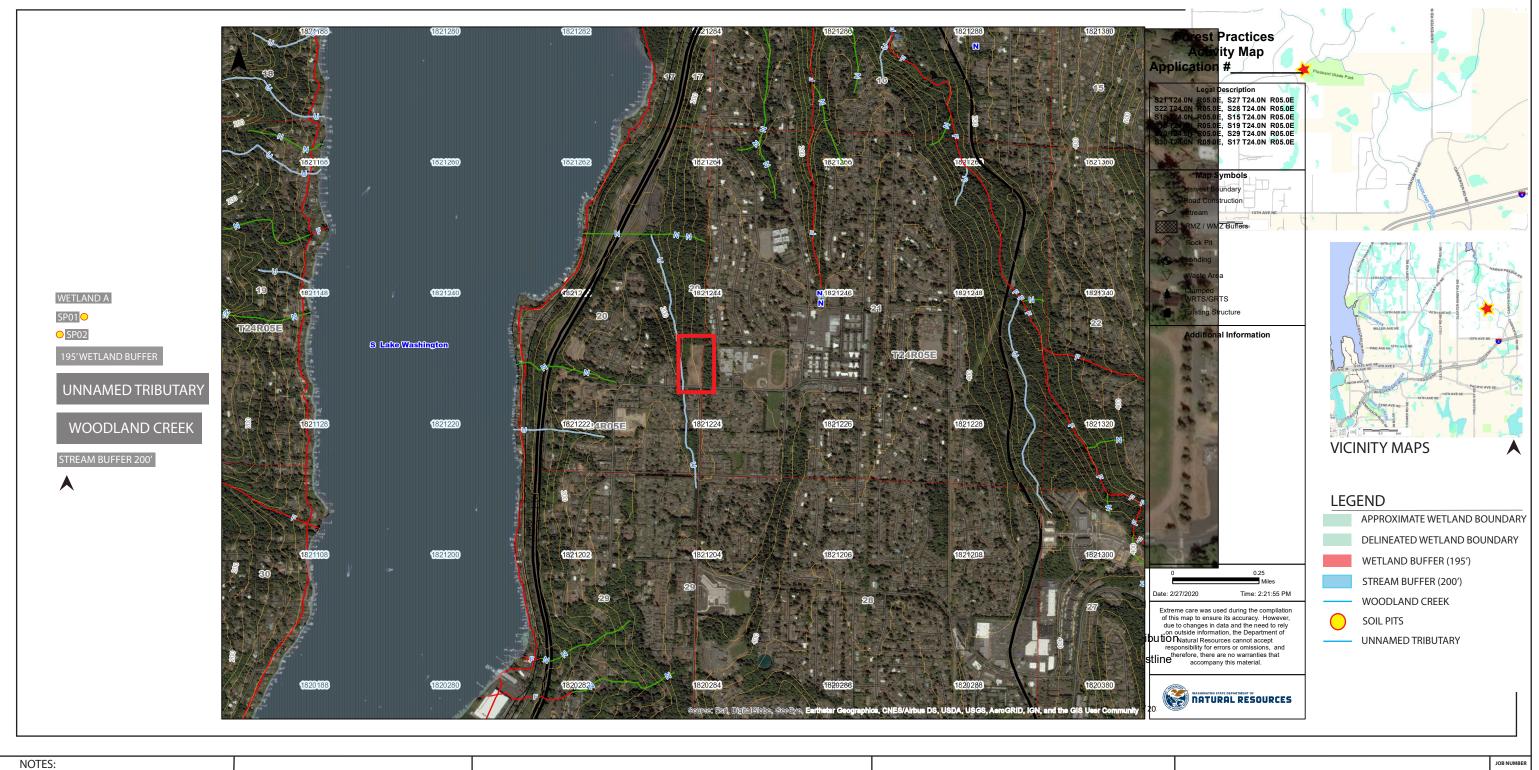
Vicinity Map

20025

APPENDIX B

FPARs Map

SUBJECT MAPPAREM(Quenter on page)



SKILLINGS

ADDRESS / LOCATION INFO PARCEL #2024059018 11560 SE 60th St, Bellevue, WA 98006

FPARS Map

ов NUMBER 20025

SHEET

1

OF

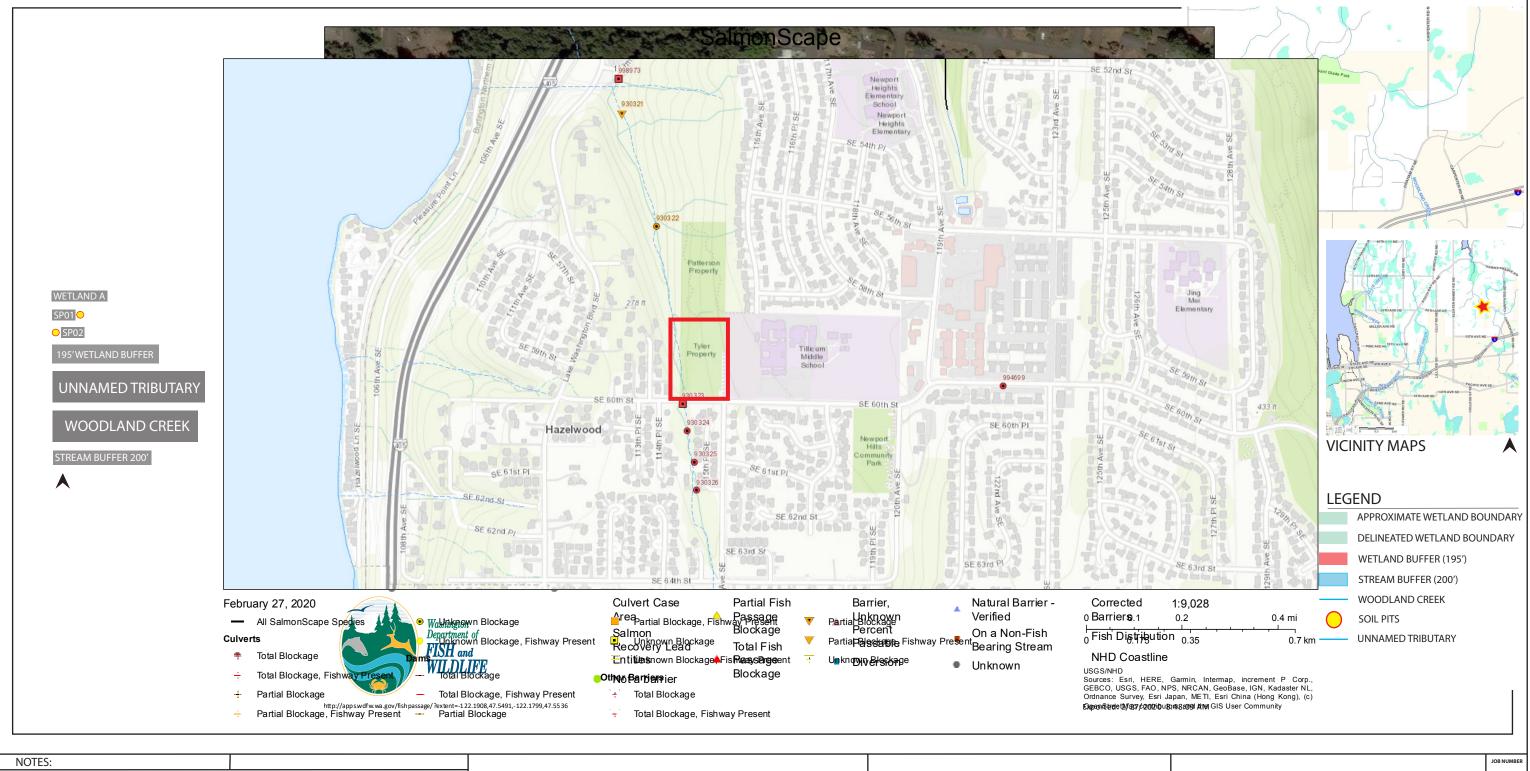
1

SHEETS

APPENDIX C

SalmonScape

SUBJECT MSAPMONSE (Real Men on page)



SKILLINGS

ADDRESS / LOCATION INFO PARCEL #2024059018 11560 SE 60th St, Bellevue, WA 98006

SalmonScape

20025 SHEET 1

APPENDIX D

WDFW Fish Passage

SUBJECT MAPFITE (Center on page)



Washington State Fish Passage



http://apps.wdfw.wa.gov/fishpassage/?extent=-122.1908,47.5491,-122.1799,47.5536

Culvert Case Salmon Recovery Lead Entities

Not a barrier

Partial Fish Passage Blockage Total Fish

Passage Blockage

Barrier, Unknown Percent

Passable Diversion Natural Barrier -

On a Non-Fish Bearing Stream

Unknown

Corrected Barriers

Fish Distribution NHD Coastline



LEGEND

APPROXIMATE WETLAND BOUNDARY DELINEATED WETLAND BOUNDARY

WETLAND BUFFER (195') STREAM BUFFER (200')

WOODLAND CREEK

SOIL PITS

UNNAMED TRIBUTARY

Exported: 2/27/2020 8:48:09 AM

NOTES:

WETLAND A SP01 ○ SP02

195'WETLAND BUFFER

STREAM BUFFER 200'

UNNAMED TRIBUTARY

WOODLAND CREEK

SKILLINGS

ADDRESS / LOCATION INFO PARCEL #2024059018 11560 SE 60th St, Bellevue, WA 98006

WDFW Fish Passage

20025



Fish Passage & Diversion Screening Inventory Database Report Cover Sheet

The following report is extracted from the Washington Department of Fish and Wildlife's (WDFW) Fish Passage and Diversion Screening Inventory Database (FPDSI). WDFW makes every attempt to keep these reports in sync with FPDSI; however, the dynamic nature of the data and workflows associated with maintaining the database may result in short-term differences.

Users are encouraged to contact WDFW to discuss appropriate use of the data and how we can assist with fish passage barrier removal or inventory. Please visit the Fish Passage web site for contact information at: https://wdfw.wa.gov/species-habitats/habitat-recovery/fish-passage/about

Disclaimers:

- Data presented here represent a snapshot observation of conditions in a dynamic environment that is subject to change. Fish passage data are also collected from a variety of agencies and sources. Therefore, WDFW makes no guarantee concerning the data's content, accuracy, completeness, or the results obtained from use of the data. WDFW assumes no liability for the data represented here.
- These data are not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife.
- Note that some fish passage features, habitats or species may occur in areas not currently
 known to the WDFW Fish Passage division, and may not be reflected in this database. A lack of
 data does not necessarily indicate that a feature, habitat, or species are not present.
- Unauthorized attempts to alter or modify these data are strictly prohibited.
- Bankfull width measurements included in these reports should not be used for fish passage crossing design. They are solely for assessment purposes.
- The barrier status reported in this document is based on the swimming abilities of adult salmonids. Passabilities are a qualitative value, and should not be interpreted as a quantitative calculation. Please see page 1-4 of the Fish Passage Inventory, Assessment and Prioritization Manual for further clarification: https://wdfw.wa.gov/publications/02061
- EXIF data presented with Image Reports may be erroneous due to camera battery failures and resetting of camera clock functions.

Abbreviations:

Most abbreviations in this report are defined in the Quick Reference Tables of the Fish Passage Inventory, Assessment, and Prioritization Manual. Additional commonly used abbreviations are defined as follows:

NFB = no potential salmonid use, **BB** = both banks, **LB** = left bank looking downstream, **RB** = right bank looking downstream, **US** or **U/S** = upstream, **DS** or **D/S** = downstream, **WSDrop** = water surface drop, **BFW** = bankfull width, **OHW** = ordinary high water, **SLW** = scour line width, **CMP** = corrugated metal pipe, **Q**_{fp} = fish passage flow, **V&D** = Velocity and Depth, **ROW** = Right of Way

The FPDSI database often uses default values such as '-99.99' or '-999' to represent null values.

WDFW Fish Passage and Diversion Screening Inventory Database

Site Description Report

Site ID 930322				Pro	oject WSDOT
Geographic Coordinat	es	Waterbo	dy		
Latitude (WGS 84):	47.552990382	Stream:			Lakehurst Cr
Longitude (WGS 84):	-122.187554448	Tributar	у То:	L	ake Washington
East (HARN 83):	1,223,698.8	WRIA:	_		08.0281
North (HARN 83)	813,945.4	River Mi	ile:		-999.99
		Fish Use	e Poter	ntial:	Yes
General Location		FUP Cri	teria:		Physical
Road Name:		Owner			
Mile Post:	-999.99	Type:	Privat	е	
County:	King	Name:			
WDFW Region:	4				
PI Species					,
☐ Sockeye	☐ Chinook		✓ S	ea R	un Cutthroat
☐ Pink	✓ Coho		✓ R	eside	ent Trout
☐ Chum	✓ Steelhea	ad	□в	ull Tr	out
Associated Features					
✓ Culvert	☐ Dam	☐ Natural Ba	arrier		Diversion
☐ Non-Culvert Xing	☐ Other	\square Fishway			
Location/Directions					
In wooded ravine between 1-405.	en Lk Washington l	Blvd and 116th Ave	e SE, a	cces	s via exit at Mp 9 of
Site Comments					
from PS 998973					

Print Date: 4/18/2019

These data represent a snapshot of the Washington Department of Fish and Wildlife's current records. Due to the ongoing nature of assessment and inventory of these features, these data may not accurately represent conditions on the ground, and are subject to change.

WDFW Fish Passage and Diversion Screening Inventory Database

Level A Culvert Assessment Report

			LEV	el A Ci	IIVEIL AS	36331116	in Kept)i t			
Site ID: 93	0322										
Latitude: 47	.552990382		Strea	m:	Lakehurst	Cr		WRIA:	(08.0281	
Longitude: -12	22.18755444	48	Tribut	tary To:	Lake Wasl	nington		Fish Us	e Potential:	Yes	
Data Source					WDFW						
	Field Crew:	Nyl	lander;Ro	mero		F	Review Date	e: 2/9/2	009		
		-Culv	ert Detai	ls —				Lev	/el A Paramet	ers —	<u> </u>
ID Shape	Material	<u>Span</u>	Rise	Length	WDIC	<u>Apron</u>	WSDrop	Location	Countersunk	Backwater	Slope (%)
1.1 RND	CST	1.22	1.22	7.60	0.05	US	0.37	Outlet	No		2.11
All dimensions	in meters										
					100		5 0				1
Channel Des	cription —										
Toe Width (m):				1 359					1 1	
Average Widt	h (m):		2.90		- V						
Culvert/Strear	n Width Rat	tio:	0.42					A Physical Property of the Party of the Part			
Plunge Pool									// /		
Length (m):			4.10		and the same of						
Max Depth (m	n):		0.87		1.1			4			
OHW Width (3.10								
Road -							TE				
Fill Depth (m):			2.00								
						大 村村的				- Miller V]
Assessment F		7									
Barrier:	Yes]	Passabi		33		Method:		Level A		
Reason:	WS Drop		Fishway	Present	: No)	Recheck:				
Comments											
Potential Habit	tat Gain										
Survey Type:	RSI	FS		Spawnii	ng (sq m):	4	83		Length (m):	987	

Print Date: 4/18/2019

Significant Reach:

Yes

Rearing (sq m):

1,229

PI Total

13.62

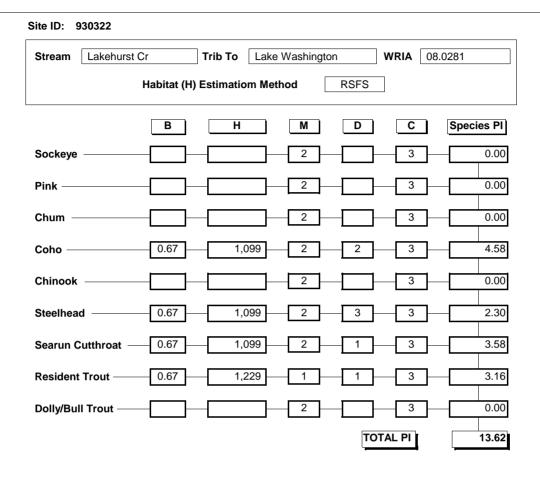
WDFW Fish Passage and Diversion Screening Inventory Database Habitat Survey Summary Report

Site ID: 930322							
Latitude: 47.552990382 Long	gitude: -122.18755444	8 WRIA:	08.0281				
Stream: Lakehurst Cr Tribu	utary To: Lake Washingto	n Pl Total:	13.62				
Survey Type RSFS							
Spreadsheet File(s):							
998973.xls							
Downstream Survey							
Date: 2/9/2009 Crew: Nylande	er;Romero Lenç	yth (m): 384					
Downstream Comments:		_					
276m to US end of 998973. Stream flows through wooded ravine. Gradient=2.5%, OHW=1.2m. LWD in channel. Stream banks are incised ~1m high. Mixed canopy of cedar, maple, and alder. Channel substrate is mostly gravel.							
Upstream Survey Date: 2/9/2009 Crew: Nylander;Romero Length (m): 987 Upstream Comments:							
US habitat of this suburban stream includes riffle through wooded ravine and residential backyards. Upper reach is well defined channel through muddy wetland. Many culverts. Stormwater street drains contribute majority of flow.							
Potential Habitat Gain							
Lineal (m): 987 Spawning Area (sq m): 483 Rearing Area (sq m): 1,229	DistributionAnadromousResident OnlyUnknown	Gain Direction (Resid	ent Only)				
Potential Species Benefit							
☐ Sockeye / Kokanee	☐ Chinook	✓ Searun Cutthroa	nt				
☐ Pink	✓ Coho	Resident Trout					
☐ Chum	✓ Steelhead	☐ Bull Trout					

Print Date: 4/18/2019

WDFW Fish Passage and Diversion Screening Inventory Database

Barrier Priority Index Report



Print Date: 4/18/2019

B = proportion of fish passage improvement (1, 0.67, 0.33).

H = potential habitat gain (square meters), spawning habitat for sockeye, pink and chum, rearing habitat for the rest.

M= mobility modifier (anadromous = 2, resident = 1).

D = stock condition modifier (critical = 3, depressed = 2, not 2 or 3 = 1).

C= repair cost modifier (<\$100K = 3, \$100K - \$500K = 2, >\$500K = 1).



Fish Passage & Diversion Screening Inventory Database Report Cover Sheet

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WDFW Fish Passage and Diversion Screening Inventory Database

Site Description Report

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Longitude (WGS 84):	-122.186776226	Tributar	у То:	L	ake Washington
East (HARN 83):	1,223,862.8	WRIA:			08.0281
North (HARN 83)	812,624.8	River M	ile:		-999.99
		Fish Us	e Potei	ntial:	Yes
General Location		FUP Cr	iteria:		Physical
Road Name:		Owner			
Mile Post:	-999.99	Type:	City		
County:	King	Name:	City o	f Bell	evue
WDFW Region:	4				
PI Species			·		<u>' </u>
☐ Sockeye	☐ Chinook		✓ S	ea R	un Cutthroat
☐ Pink	✓ Coho	✓ Resident Trout			
☐ Chum	✓ Steelhea	ad	□в	ull Tr	out
Associated Features					
☐ Culvert	✓ Dam	☐ Natural Ba	arrier		Diversion
\square Non-Culvert Xing	\square Other	\square Fishway			
Location/Directions					
~0.18 miles E of Lk Wa	shington Blvd on SE	E 60th St.			
Site Comments					
from PS 998973					

Print Date: 4/18/2019

These data represent a snapshot of the Washington Department of Fish and Wildlife's current records. Due to the ongoing nature of assessment and inventory of these features, these data may not accurately represent conditions on the ground, and are subject to change.

WDFW Fish Passage and Diversion Screening Inventory Database Dam Assessment Report

Site ID: 930323						
Latitude: 47.5493	80543 Strea	ım: La	kehurst Cr		WRIA:	08.0281
Longitude: -122.186	5776226 Trib	То: La	ke Washingt	on	Fish Use Pot	ential: Yes
Data Source						
Organization: WDF	W					
Field Crew:	lylander;Romero	F	Review Date:	2/9/2009		
Description						
Dam Name:			Type:	Earth Fill	Operated:	Year Round
Resevoir Name:			Span:	Full	Fishway Pr	esent: No
Primary Purpose:	Flood Contr	ol	Outlet:	Standpipe		
Assessment Param	neters		8			
Length (m):	27	7.00				
Height (m):	(9.00				
Water Surface Diffe	erence (m):	.09			State of the state	
Plunge Pool Depth	(m):	0.39				\$
Results						
Barrier:	Yes					
Reason:	WS Drop					
Passability (%):	0					
Recheck:						
Description						
Culvert under road PVC sleeve throug RND pipe 8m long	jh a SST pipe , 4′	m long	at 2.7% slope	e. At US end		
Comments						
Potential Habitat G	ain					
Survey Type:	RSFS	Reari	ng (sq m):	448	Length (m):	539
Significant Reach:	Yes	Spaw	ning (sq m):	92	PI Total:	10.56

Print Date: 4/18/2019

These data represent a snapshot of the Washington Department of Fish and Wildlife's current records. Due to the ongoing nature of assessment and inventory of these features, these data may not accurately represent conditions on the ground, and are subject to change.

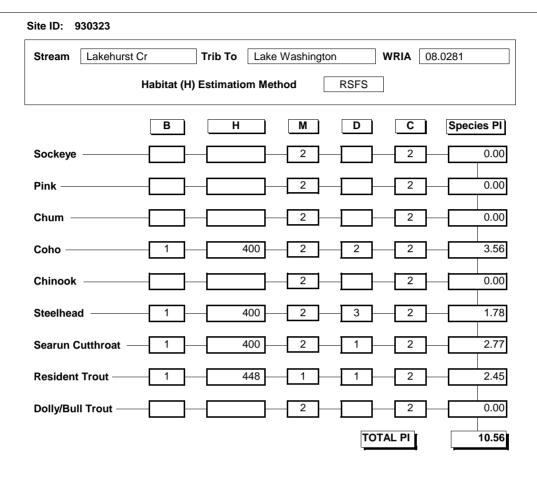
WDFW Fish Passage and Diversion Screening Inventory Database Habitat Survey Summary Report

Site ID: 930323							
Latitude: 47.549380543 Long	itude: -122.1867762	26 WRIA:	08.0281				
Stream: Lakehurst Cr Tribu	itary To: Lake Washingt	on Pl Total:	10.56				
Survey Type RSFS							
Spreadsheet File(s):							
998973.xls							
Downstream Survey							
Date: 2/9/2009 Crew: Nylande	r;Romero Len	gth (m): 779					
Downstream Comments:							
778 to US end of 998973. Stream fl							
maple,cedar, and alder. Channel suin channel. Gradient= 2.5%. OHW a		Banks incised 1 to 1.5m	. LWD				
Upstream Survey							
·	ander;Romero Len	gth (m): 539	1				
Upstream Comments:			_				
Stream flows from narrow ravine wit							
flows from residential backyards. 18			/dense				
dogwood canopy. Stream source is mostly closed system stormwater runoff.							
Potential Habitat Gain							
	─ Distribution — — —						
Lineal (m): 539	Anadromous	Gain Direction (Reside	ent Only)				
Spawning Area (sq m): 92	Resident Only						
Rearing Area (sq m): 448	O Unknown						
	o Grindienii						
Potential Species Benefit							
☐ Sockeye / Kokanee	☐ Chinook	✓ Searun Cutthroa	t				
☐ Pink	✓ Coho	Resident Trout					
☐ Chum	✓ Steelhead	☐ Bull Trout					

Print Date: 4/18/2019

WDFW Fish Passage and Diversion Screening Inventory Database

Barrier Priority Index Report



Print Date: 4/18/2019

B = proportion of fish passage improvement (1, 0.67, 0.33).

H = potential habitat gain (square meters), spawning habitat for sockeye, pink and chum, rearing habitat for the rest.

M= mobility modifier (anadromous = 2, resident = 1).

D = stock condition modifier (critical = 3, depressed = 2, not 2 or 3 = 1).

C= repair cost modifier (<\$100K = 3, \$100K - \$500K = 2, >\$500K = 1).

WDFW Fish Passage and Diversion Screening Inventory Database Image Report - Active

Site ID:	930323				
Latitude:	47.549380543	Stream:	Lakehurst Cr	WRIA:	08.0281
Longitude:	-122.186776226	Tributary To:	Lake Washington	Fish Use Potential:	Yes
Associate	ed Features				
☐ Culv	rert -Culvert Xing	✓ Dam Other	☐ Natural Barrier	Diversion	



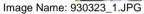




Image Name: 930323_2.JPG, Date/Time: 02/09/2009 14:35

APPENDIX E

WDFW Correspondance

Hannah Belloli

From: Fisher, Larry D (DFW) < Larry.Fisher@dfw.wa.gov>

Sent: Thursday, February 27, 2020 8:20 AM **To:** Hannah Belloli; Reinbold, Stewart G (DFW)

Cc: Grant Gilmore

Subject: RE: Bellevue Parks Stream Typing

Hannah:

The link below should at least get you into the database. You may need to zoom in to Lakehurst Creek. By clicking on the triangles, info should pop up.

https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html

Larry Fisher

WDFW Area Habitat Biologist 16018 Mill Creek Boulevard Mill Creek, WA 98012

Cell: 425-449-6790 – Please note phone change to just my cell phone.

<'){{}}>< <'){{}}}><

From: Hannah Belloli hbelloli@skillings.com Sent: Wednesday, February 26, 2020 2:01 PM

To: Fisher, Larry D (DFW) <Larry.Fisher@dfw.wa.gov>; Reinbold, Stewart G (DFW) <Stewart.Reinbold@dfw.wa.gov>

Cc: Grant Gilmore <ggilmore@skillings.com> **Subject:** RE: Bellevue Parks Stream Typing

Larry,

I am unable to open the attachment you sent, can you resend?

Thank you,

Hannah Belloli

Staff Scientist

(360) 491-3399



From: Fisher, Larry D (DFW) [mailto:Larry.Fisher@dfw.wa.gov]

Sent: Wednesday, February 26, 2020 1:52 PM

To: Hannah Belloli https://example.com; Reinbold, Stewart G (DFW) Stewart.Reinbold@dfw.wa.gov>

Cc: Grant Gilmore <ggilmore@skillings.com> **Subject:** RE: Bellevue Parks Stream Typing

Hi Hannah:

I hope you can view the attached file. That watercourse has been surveyed by our fish passage team. They determined it meets the state criteria for presumption of fish use based upon the physical criteria for size and gradient. When there are human made barriers, that is the procedure, so it would be of no further consequence for me to go out there to make another call. It is presumed to be F water.

Please direct any further questions to me.

Thank you

<'){{}}>< <'){{}}}><

Larry Fisher
WDFW Area Habitat Biologist
16018 Mill Creek Boulevard
Mill Creek, WA 98012
Cell: 425-449-6790 – Please note phone change to just my cell phone.

From: Hannah Belloli hbelloli@skillings.com

Sent: Wednesday, February 26, 2020 9:15 AM **To:** Reinbold, Stewart G (DFW) < Stewart.Reinbold@dfw.wa.gov >; Fisher, Larry D (DFW) < Larry.Fisher@dfw.wa.gov >

Cc: Grant Gilmore <ggilmore@skillings.com> **Subject:** Bellevue Parks Stream Typing

Here is the SalmonScape and FPARs for the stream in question. We are hoping to get a determination in writing for the City of Bellevue.

Thank you for taking a look at this.

Hannah Belloli

Staff Scientist

(360) 491-3399



Attachment D





Subsurface Exploration, Geologic Hazard, Infiltration Assessment, and Geotechnical Engineering Report

NEWPORT HILLS NEIGHBORHOOD PARK

Bellevue, Washington

Prepared For:

CITY OF BELLEVUE PARKS AND COMMUNITY SERVICES DEPARTMENT

Project No. 20190459E001 February 21, 2020



Associated Earth Sciences, Inc. 911 5th Avenue Kirkland, WA 98033 P (425) 827 7701



February 21, 2020 Project No. 20190459E001

City of Bellevue Parks and Community Services Department P.O. Box 90012 Bellevue, Washington 98004

Attention: Mr. Scott Vander Hyden

Subject: Subsurface Exploration, Geologic Hazard, Infiltration Assessment,

and Geotechnical Engineering Report Newport Hills Neighborhood Park

11560 SE 60th Street Bellevue, Washington

Dear Mr. Vander Hyden:

We are pleased to present the enclosed copy of the referenced report. This report summarizes the results of our subsurface exploration, geologic hazard, infiltration assessment, and geotechnical engineering studies and offers recommendations for the design and development of the proposed project. This report is based on a site survey titled "Boundary and Topographic" by Group Four Inc., dated June 16, 2019 and an undated "Preferred Park Plan" provided by the City of Bellevue Parks and Community Services Department. We recommend that we be allowed to review final project plans when they are developed and update our recommendations as needed.

We have enjoyed working with you on this study and are confident that the recommendations presented in this report will aid in the successful completion of your project. Please contact me if you have any questions or if we can be of additional help to you.

Sincerely,

ASSOCIATED EARTH SCIENCES, INC. Kirkland, Washington

Bruce L. Blyton, P.E.

Senior Principal Engineer

BLB/ms - 20190459E001-3

SUBSURFACE EXPLORATION, GEOLOGIC HAZARD, INFILTRATION ASSESSMENT, AND GEOTECHNICAL ENGINEERING REPORT

NEWPORT HILLS NEIGHBORHOOD PARK

Bellevue, Washington

Prepared for:

City of Bellevue
Parks and Community Services Department

P.O. Box 90012 Bellevue, Washington 98004

Prepared by:

Associated Earth Sciences, Inc.

911 5th Avenue Kirkland, Washington 98033 425-827-7701

February 21, 2020 Project No. 20190459E001

I. PROJECT AND SITE CONDITIONS

1.0 INTRODUCTION

This report presents the results of Associated Earth Sciences, Inc's (AESI) subsurface exploration, geologic hazard, infiltration assessment, and geotechnical engineering study for the proposed improvements to the existing Newport Hills Neighborhood Park in Bellevue, Washington. Our understanding of the project is based on our correspondence with you, a site survey titled "Boundary and Topographic" by Group Four Inc., dated June 16, 2019, an undated "Preferred Park Plan" provided by the City of Bellevue Parks and Community Services Department and our experience working in the project area. The site location is shown on the "Vicinity Map," Figure 1. The approximate locations of explorations completed for this study are shown on the "Site and Exploration Plan," Figure 2. Interpretive exploration logs of the subsurface explorations completed for this study are included in the Appendix of this report.

1.1 Purpose and Scope

The purpose of this study was to provide subsurface soil and groundwater data to be utilized in the design of the above-referenced project. Our study included reviewing available geologic literature, drilling four exploration borings and performing a geologic study to assess the type, thickness, distribution, and physical properties of the subsurface sediments and shallow groundwater conditions. Geotechnical engineering studies were completed to determine the type of suitable foundations, allowable foundation soil bearing pressures, anticipated foundation settlements, erosion considerations, drainage considerations, and to provide infiltration feasibility recommendations. This report summarizes our current fieldwork and offers development recommendations based on our present understanding of the project.

1.2 Authorization

Authorization to proceed with this study was granted by Scott Vander Hyden with the City of Bellevue. Our study was accomplished in general accordance with our proposal, dated December 9, 2019. This report has been prepared for the exclusive use of the City of Bellevue and its agents for specific application to this project. Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering and engineering geology practices in effect in this area at the time our report was prepared. No other warranty, express or implied, is made. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the City.

ASSOCIATED EARTH SCIENCES, INC. February 21, 2020

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2.0 PROJECT AND SITE DESCRIPTION

The subject site consists of the existing Newport Hills Neighborhood Park located at 11560 SE 60th Street in Bellevue, WA (King County Parcel No. 2024059018) as shown on "Vicinity Map," Figure 1. The subject site is rectangular in plan view and approximately 4.8 acres. It is bounded to the north, east, and west by wooded areas, and to the south by SE 60th Street. The parcel consists mainly of a large grassy field, with parking stalls, a gravel roadway, a 3-foot-high concrete wall and an up-to-3-foot-high rockery, all located near the eastern parcel boundary. The western area of the parcel slopes down to a ravine and is wooded with evergreen trees, deciduous trees, and underbrush. The majority of the topography slopes gently to moderately down toward the west and southwest area of the site with an overall vertical relief of approximately 36 feet. A steep slope exists as part of the ravine in the western quarter of the site with an overall vertical relief of approximately 76 feet near the north site boundary and 32 feet near the south site boundary. At the time of explorations, we observed surface water or wet topsoil conditions on the majority of the field, emergent seepage on the steep slopes near the southwest corner of the parcel, and an active stream flowing at the base of the ravine with its source coming from an outfall partway up the slope and at the bottom of the slope near SE 60th Street.

Based on discussions with City representatives and LPD Engineering, the project civil engineer, it our understanding that the currently proposed project will include new picnic shelter(s), expanded parking, new lighting, gravel pathways, and trail improvements through the wooded areas. It is our understanding that no improvements are planned within the steep slope area west of the existing field. Drainage improvements for the off-leash dog area are currently under consideration as well, with a potential underdrain system installed beneath the existing field. A stormwater vault is proposed in the southwest corner of the parcel to manage stormwater. Once the project plans have been finalized, AESI should review the plans to verify that our recommendations remain appropriate.

3.0 SUBSURFACE EXPLORATION

Our field studies included drilling four exploration borings to gain subsurface information about the site on January 16, 2020. The various types of sediments, as well as the depths where characteristics of the sediments changed, are indicated on the exploration logs presented in the Appendix. The depths indicated on the logs where conditions changed may represent gradational variations between sediment types. Our explorations were approximately located in the field relative to known site features shown on the "Site and Exploration Plan," Figure 2.

The conclusions and recommendations presented in this report are based, in part, on the conditions encountered in the exploration borings completed for this study. The number, locations, and depths of the explorations were completed within site and budgetary

ASSOCIATED EARTH SCIENCES, INC. Page 2 CC/ms - 20190459E001-3

constraints. Because of the nature of exploratory work below ground, extrapolation of subsurface conditions between the field explorations is necessary. Differing subsurface conditions may be present outside of the area of the field explorations due to the random nature of deposition and the alteration of topography by past grading and/or filling. The nature and extent of any variations between the field explorations may not become fully evident until construction. If variations are observed at that time, it may be necessary to re-evaluate specific recommendations in this report and make appropriate changes.

3.1 Exploration Borings

Exploration borings were drilled for this study using a rubber track-mounted drill rig equipped with hollow-stem auger tooling. During the drilling process, samples were generally obtained at 2.5- to 5-foot-depth intervals. Conditions encountered in our explorations were continuously observed and logged by a geologist from our firm. The attached exploration logs are based on the field logs, drilling action, and inspection of the samples collected.

Disturbed but representative samples were obtained by using the Standard Penetration Test (SPT) procedure in accordance with ASTM International (ASTM) D-1586. This test and sampling method consists of driving a standard 2-inch, outside-diameter, split-barrel sampler a distance of 18 inches into the soil with a 140-pound hammer free-falling a distance of 30 inches. The number of blows for each 6-inch interval is recorded and the number of blows required to drive the sampler the final 12 inches is known as the Standard Penetration Resistance ("N") or blow count. If a total of 50 is recorded within one 6-inch interval, the blow count is recorded as the number of blows for the corresponding number of inches of penetration. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils; these values are plotted on the attached boring logs.

The samples obtained from the split-barrel sampler were classified in the field and representative portions placed in watertight containers. The samples were then transported to our laboratory for further visual classification and geotechnical laboratory testing, as necessary.

The various types of soil and groundwater elevations, as well as the depths where soil and groundwater characteristics changed, are indicated on the exploration boring logs presented in the Appendix of this report. Due to the park being in use at the time of explorations, safety fencing was placed to enclose the drilling equipment, operators, and ourselves during each of our explorations.

4.0 SUBSURFACE CONDITIONS

Subsurface conditions on the project site were inferred from the field explorations conducted for this study, visual reconnaissance of the site, and a review of applicable geologic literature.

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As shown on the exploration logs, soils encountered at the site consisted of topsoil, fill, Holocene alluvium, Vashon lodgement till, and pre-Fraser deposits. The general distribution of geologic units is shown on the exploration logs.

4.1 Stratigraphy

Topsoil

A surficial layer of topsoil was encountered at each of our exploration borings. This topsoil horizon was approximately 2 to 6 inches in thickness. An additional buried topsoil zone was observed beneath approximately 1.5 to 2 feet of fill within exploration borings EB-2 and EB-3, extending up to 3 feet beneath the surface. This subsurface topsoil layer ranged in thickness from 6 inches to 1 foot. Topsoil thicknesses are shown on the attached subsurface exploration logs.

Due to their high organic content, these materials are not considered suitable for foundation, roadway, or slab-on-grade floor support, for use in a structural fill, or for stormwater infiltration.

Fill

Fill soils (those not naturally deposited) were encountered in exploration borings EB-1 through EB-3 to depths of 2 to 12.5 feet below the ground surface. A shallower fill depth or no fill was observed within borings on the east (uphill) area of the site within EB-2 and EB-4, extending approximately 2 feet below ground surface within EB-2 with no fill observed within EB-4. Deeper fill depths were observed within borings on the west (downhill) area of the site within EB-1 and EB-3, extending approximately 12.5 to 9 feet below ground surface, respectively. An approximately 6-inch- to 1-foot-thick topsoil horizon exists below the fill within EB-2 and within the fill in EB-3. Fill soils generally consisted of medium stiff to stiff silt with varying amounts of sand and gravel, and medium dense, silty sand with varying amounts of gravel, and contained organic material. Fill soils are anticipated to be present in increasing thickness toward the western area of the existing field near the steep slope. Fill may also be present around the existing concrete wall and rockery in the northwest part of the parcel and in buried utility trenches.

Due to its variability, low density, and organic content, existing fill on this site is not suitable for structural support or for reuse in structural fill applications and warrants remedial preparation below new paving.

Holocene Alluvium

Sediments interpreted as Holocene alluvium were encountered underlying the fill in EB-3, 9 feet below existing ground surface. The Holocene alluvium sediments were about 5 feet in

ASSOCIATED EARTH SCIENCES, INC. Page 4 CC/ms - 20190459E001-3

thickness and generally consisted of soft silt with some sand and trace gravel, ranging to loose sand with trace amounts of silt. Frequent roots and woody debris were observed, along with occasional charcoal. We interpret these sediments to have deposited in a low-energy quiescent water environment within the last 10,000 years.

Due to its high organic content and low density, organic-rich alluvium is not suitable for structural support or for reuse in structural fill applications and warrants remedial preparation below new paving.

Vashon Lodgement Till

Beneath the topsoil within EB-2 and EB-4, and the Holocene alluvium within EB-3, the soils encountered typically consisted of medium dense to very dense, silty sand with some gravel interpreted as Vashon lodgement till. At these locations, these sediments were encountered about 3 feet, 14 feet, and less than 1 foot beneath existing ground surface within EB-2, EB-3, and EB-4, respectively. These sediments extended up to approximately 18 feet and 16 feet beneath existing ground surface within EB-2 and EB-4, respectively, and beyond the maximum depth explored of 20.5 feet within EB-3. Vashon lodgement till was deposited by basal, debris-laden, glacial ice during the Vashon Stade of the Fraser Glaciation, approximately 12,500 to 15,000 years ago. The high relative density characteristic of the Vashon lodgement till is due to its consolidation by the massive weight of the glacial ice from which it was deposited.

Lodgement till typically possesses high-strength and low-compressibility attributes that are favorable for support of foundations, floor slabs, and paving, with proper preparation. Lodgement till is silty and moisture-sensitive. In the presence of moisture contents above the optimum moisture content for compaction purposes, lodgement till can be easily disturbed by vehicles and earthwork equipment. Careful management of moisture-sensitive soils, as recommended in this report, will be needed to reduce the potential for disturbance of wet lodgement till soils and costs associated with repairing disturbed soils. Reuse of excavated lodgement till sediments in structural fill applications may require drying to achieve moisture contents within 1 to 2 percent of optimum for compaction purposes. Lodgement till is not typically suitable for infiltration of stormwater because of its low permeability.

Pre-Fraser-Age Deposits

Three exploration borings encountered variable sediments stratigraphically below fill within EB-1 and Vashon lodgement till within EB-2 and EB-4 that are interpreted to represent pre-Fraser sediments. Within EB-1, the observed pre-Fraser sediments included medium dense becoming very dense sand, with varying amounts of silt and gravel overlying hard silt with varying amounts of sand. When exposed to hydrochloric acid, samples from some of these

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sediments reacted to form gas bubbles, which may indicate the presence of calcium carbonate associated with marine deposition.

These sediments were deposited sometime prior to the Fraser Glaciation (>30,000 years ago) and subsequently compacted by the weight of the overlying glacial ice. At the locations of the borings mentioned above, the pre-Fraser deposits extended beyond the maximum depths explored of 16.5 feet to 51.5 feet. Pre-Fraser deposits are generally considered suitable for support of structural loads. Pre-Fraser age-deposits were saturated or composed of hard silt and are not considered suitable for infiltration of stormwater.

Review of Selected Available Geologic Data

Review of a regional geologic map (Geologic Map of Bellevue, Washington, GeoMapNW, prepared by Kathy Goetz Troost, 2012) indicates that the site is expected to be underlain by native sediments consisting of Vashon lodgement till with Vashon advance outwash sediments mapped nearby. Our interpretation of the sediments encountered at the subject site is in partial agreement with the regional geologic map as our explorations encountered Vashon lodgement till on a portion of the site but did not encounter Vashon advance outwash.

4.2 Hydrology

Groundwater was observed in exploration borings EB-1 through EB-3 drilled for this study in mid-January 2020. Within EB-1, the groundwater was observed at the time of drilling at about 11 feet and wet to a depth of about 21 feet. Additionally, during our slope reconnaissance, we observed groundwater seepage on the slope downhill from EB-1, at a similar elevation where groundwater was encountered within EB-1.

Within EB-2 and EB-3, groundwater was observed near the contact with the underlying lodgement till at 2.5 feet and 10 feet below existing ground surface within the topsoil and Holocene alluvium, respectively. These conditions are representative of perched groundwater conditions where groundwater becomes trapped or "perched" atop less permeable soils such as Vashon lodgement till or the silt beds within the pre-Fraser deposits.

At the time of our explorations, stagnant surface water and wet topsoil conditions were observed on the surface of the field. A combination of prolonged rainfall, medium dense fill, low permeability topsoil underlying the fill and near surface dense lodgement till soils are likely attributing to the perched surface water conditions observed on the field at the time of explorations.

Groundwater conditions, including depth and duration and quantity of seepage, should be expected to vary seasonally, and in response to changes in precipitation, soil grain-size distribution, topography, on- and off-site land usage, and other factors.

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II. GEOLOGIC HAZARDS AND MITIGATIONS

The following discussion of potential geologic hazards is based on the geologic, slope, and ground and surface water conditions, as observed and discussed herein.

5.0 LANDSLIDE HAZARDS AND RECOMMENDED MITIGATION

The topography of the site is distinguished by steep slopes on the western area of the parcel and gentle to moderate slopes on the eastern area of the parcel. The gentle to moderate slopes are currently occupied by a grassy field and descend toward the west and southwest area of the site with an overall vertical relief of approximately 36 feet. Slopes within the field are generally steeper to the north, with a vertical relief of approximately 28 feet, while the slopes to the south have a vertical relief of approximately 20 feet. The steep slopes on the western area of the parcel trend near the western property line with an overall vertical relief of approximately 76 feet near the north site boundary and 32 feet near the south site boundary. The overall vertical relief calculated includes the western slope both onsite and offsite; on-site vertical relief is measured from the above referenced topographic survey and off-site vertical relief is measured from Light Detection and Ranging (LIDAR) (NAVD 88). The majority of the western slope is mapped as a steep slope hazard area on the City of Bellevue Critical Hazards Maps, identified as having slopes greater than 40 percent.

The Bellevue Municipal Code (BMC) 20.25H.120 (Designation of Critical Area and Buffers), defines steep slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area as "Landslide Hazards." Additionally, any slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics are considered landslide hazards:

- a. Areas of historic failures, including those areas designated as Quaternary slumps, earthflows, mudflows, or landslides.
- b. Areas that have shown movement during the Holocene Epoch (past 13,500 years) or that are underlain by landslide deposits.
- c. Slopes that are parallel or subparallel to planes of weakness in subsurface materials.
- d. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.
- e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.

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f. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action."

Review of topographic contours depicted on the survey titled "Boundary and Topographic" by Group Four Inc., dated June 16, 2019, as well as topographic contours generated from LIDAR (NAVD 88), indicate that the slope inclination within the grassy field in the northern area of the parcel is approximately 14 percent over a height of 28 feet, and the slope inclination within the grassy field in the southern area of the parcel is approximately 10 percent over a height of 20 feet. These areas do not classify as a landslide hazard risk under the BMC.

The inclination of the slope that is part of the ravine is approximately 47 percent over a height of 76 feet in the northern area of the parcel and 32 feet in the southern area of the parcel. The slope steepens locally to 71 percent over a height of approximately 20 feet. This slope classifies as a landslide hazard risk under the BMC due to having a slope of at least 40 percent over 10 feet and exceeding 1,000 square feet in area, as well as having a slope of 15 percent over 10 feet showing geomorphological features indicative of past failures and areas with daylighting seepage on the slope face, as discussed further in the "Slope Reconnaissance" section below.

5.1 Slope Reconnaissance

We completed a visual reconnaissance of the slope during our visit to the site. The steep slope that is part of the ravine is mantled by a growth of shrubs, berry vines, various undergrowth, deciduous and evergreen trees with an active stream at its base. The slope near EB-1 and SE 60th Street consists of younger deciduous trees approximately 6 to 12 inches in diameter, and no evergreen trees. On the slope in this area, we observed emergent seepage at approximately the same elevation that we observed groundwater within EB-1 as well as hummocky ground, mid-slope terraces, and back-rotated trees.

5.2 Landslide Hazard Mitigation, Setbacks, and Buffers

We understand that the proposed improvements to the park will be limited to the relatively level portion of the site and the wooded area to the north and that no improvements are planned in the area of the steep slope. The proposed improvements will include new picnic shelter(s), expanded parking, new lighting, gravel pathways, and trail improvements through the wooded area to the north. Improvements to the drainage capability of the off-leash dog area are currently under consideration as well.

Based on our observations, it is our opinion that the risk of damage to the proposed project by deep-seated landsliding under either static or seismic conditions is low to moderate. As previously discussed, the borings drilled on the project site encountered a lens of fill soils with reduced soil density. It is likely that fill soils were placed on the slope during grading of the

ASSOCIATED EARTH SCIENCES, INC. Page 8 CC/ms - 20190459E001-3

project site for the existing park improvements. In order to mitigate the risk of damage resulting from movement of the fill soils, we recommend a minimum combined buffer/structural setback of 50 feet as well as a structure setback of at least 50 feet from the top of the steep (>40 percent) slope.

It is our understanding that no disturbance or modification of the steep slope is planned for the project. We recommend that stormwater discharge on or adjacent to the top of the steep slope (e.g., via dispersion systems) be avoided as it could increase the potential for accelerated erosion and negatively impact the stability of the slope.

6.0 SEISMIC HAZARDS

Earthquakes regularly occur in the Puget Sound Lowland. The majority of these events are small and are usually not felt by people. However, large earthquakes do occur as evidenced by the most recent 6.8-magnitude event on February 28, 2001, near Olympia Washington; the 1965 6.5-magnitude event; and the 1949 7.2-magnitude event. The 1949 earthquake appears to have been the largest in this area during recorded history. Evaluation of return rates indicates that an earthquake of the magnitude between 5.5 and 6.0 is likely within a given 20-year period.

Generally, there are four types of potential geologic hazards associated with large seismic events: 1) surficial ground rupture, 2) liquefaction, 3) seismically induced landslides, and 4) ground motion. The potential for each of these hazards to adversely impact the proposed project is discussed below.

6.1 Surficial Ground Rupture

The project area is located within the Seattle Fault Zone. Our current understanding of the Seattle Fault suggests that several fault traces are spread across a relatively wide zone. Recent studies by the U.S. Geological Survey (USGS) (e.g., Johnson et al., 1994, Origin and Evolution of the Seattle Fault and Seattle Basin, Washington, Geology, v. 22, p. 71-74 and Johnson et al., 1999, Active Tectonics of the Seattle Fault and Central Puget Sound Washington - Implications for Earthquake Hazards, Geological Society of America Bulletin, July 1999, v. 111, n. 7, p. 1042-1053) have provided evidence of surficial ground rupture along a northern splay of the Seattle Fault. The recognition of this fault is relatively new, and data pertaining to it are limited, with the studies still ongoing. According to the USGS studies, the latest movement of this fault was about 1,100 years ago when about 20 feet of surficial displacement took place. This displacement can presently be seen in the form of raised, wave-cut beach terraces along Alki Point in West Seattle and Restoration Point at the south end of Bainbridge Island. The recurrence interval of movement along this fault system is still unknown, although it is hypothesized to be in excess of several thousand years. Due to the suspected long recurrence

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interval, the potential for surficial ground rupture is considered to be low during the expected life of the proposed development. No mitigation efforts beyond complying with the requirements of the local jurisdictions and the 2015 International Building Code (IBC) are recommended for this site.

6.2 Liquefaction

Liquefaction is a process through which unconsolidated soil loses strength as a result of vibrations, such as those which occur during a seismic event. During normal conditions, the weight of the soil is supported by both grain-to-grain contacts and by the fluid pressure within the pore spaces of the soil below the water table. Extreme vibratory shaking can disrupt the grain-to-grain contact, increase the pore pressure, and result in a temporary decrease in soil shear strength. The soil is said to be liquefied when nearly all of the weight of the soil is supported by pore pressure alone. Liquefaction can result in deformation of the sediment and settlement of overlying structures. Areas most susceptible to liquefaction include those areas underlain by non-cohesive silt and sand with low relative densities, accompanied by a shallow water table.

Liquefaction potential is mitigated on this site by the dense glacially consolidated sediments observed at depth within our explorations and the high silt content of the overlying soils. In our opinion, overall the potential risk of damage to the proposed improvements by liquefaction is low.

6.3 Seismically Induced Landslides

Based on our subsurface explorations and review of topographic survey, it is our opinion that the potential risk of damage to the proposed improvements by seismically induced slope failures is low to moderate during a design-level seismic event. Landslide hazards at the site are discussed further in Section 5.0 of this report.

6.4 Ground Motion/Seismic Site Class (2015 International Building Code)

Structural design should follow 2015 IBC standards. We recommend that the project be designed in accordance with Site Class "D" as defined in IBC Table 20.3-1 of American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.

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7.0 EROSION HAZARDS AND MITIGATION

The majority of the steep slope in the western area of the parcel is mapped as a very severe soil erosion hazard on the City of Bellevue Critical Hazards Maps.

The sediments underlying the site generally contain silty sand and silt, and will be sensitive to erosion. Project planning and construction should follow local standards of practice with respect to Temporary erosion and sedimentation control (TESC). We recommend the following best management practices (BMPs) to mitigate erosion hazards and potential for off-site sediment transport:

- 1. Construction activity should be scheduled or phased as much as possible to avoid earthwork activity during the wet season.
- The winter performance of a site is dependent on a well-conceived plan for control of site erosion and stormwater runoff. The site plan should include ground-cover measures and staging areas. The contractor should be prepared to implement and maintain the required measures to reduce the amount of exposed ground.
- 3. TESC elements and perimeter flow control should be established prior to the start of grading.
- 4. During the wetter months of the year, or when significant storm events are predicted during the summer months, the work area should be stabilized so that if showers occur, it can receive the rainfall without excessive erosion or sediment transport. The required measures for an area to be "buttoned-up" will depend on the time of year and the duration that the area will be left unworked. During the winter months, areas that are to be left unworked for more than 2 days should be mulched or covered with plastic. During the summer months, stabilization will usually consist of seal-rolling the subgrade. Such measures will aid in the contractor's ability to resume work after a storm event. The stabilization process also includes establishing temporary stormwater conveyance channels through work areas to route runoff to the approved treatment/discharge facilities.
- 5. All disturbed areas should be revegetated as soon as possible. If it is outside of the growing season, the disturbed areas should be covered with mulch. Straw mulch provides a cost-effective cover measure and can be made wind-resistant with the application of a tackifier after it is placed.
- 6. Surface runoff and discharge should be controlled during and following development. Uncontrolled discharge may promote erosion and sediment transport.
- 7. Soils that are to be reused around the site should be stored in such a manner as to reduce erosion from the stockpile. Protective measures may include, but are not limited

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to, covering stockpiles with plastic sheeting, or the use of silt fences around pile perimeters.

The following discussion addresses Washington State Department of Ecology (Ecology) erosion control regulations that will be applicable to the project. We anticipate that if the project complies with Washington State requirements, it will also be acceptable with respect to City of Bellevue requirements. Ecology Construction Stormwater General Permit (also known as the National Pollutant Discharge Elimination System [NPDES] permit) requires weekly TESC inspections, and pH and turbidity monitoring for all sites 1 or more acres in size that discharge stormwater to surface waters of the state. Because we anticipate that the proposed project will require disturbance of more than 1 acre, we anticipate that these inspection and reporting requirements will be triggered.

It is our opinion that with the proper implementation of the TESC plans and by field-adjusting appropriate erosion mitigation (BMPs) throughout construction, the potential adverse impacts from erosion hazards on the project may be mitigated.

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III. DESIGN RECOMMENDATIONS

8.0 INTRODUCTION

Our explorations indicate that, from a geotechnical engineering standpoint, the proposed project is feasible provided the recommendations contained herein are properly followed. In the area of the proposed improvements near the western steep slope, our explorations encountered fill/topsoil ranging in depth from 9 to 12.5 feet. In area of the proposed improvements in the eastern area of the site, our explorations encountered fill/topsoil ranging in depth from 2 inches to 3 feet. These sediments overlie medium dense to very dense pre-Fraser deposits and Vashon lodgement till within EB-1, EB-2, and EB-4. Within EB-3, these sediments overlie approximately 5 feet of soft to loose Holocene alluvium, which is underlain by very dense lodgement till.

We anticipate that the new field will be constructed close to existing grade and that the existing fill soils will be regraded and reused if project plans and specifications allow reuse or on-site soils. We also anticipate that any regrading of the area will consist of only minor cuts and fills estimated to be about 2 feet or less. We understand that improved drainage is planned for the existing field, with an underdrain system being considered. The bearing stratum near the area of the proposed new picnic structure is approximately 3 feet from the existing ground surface and conventional shallow foundations should be suitable with proper subgrade preparation. Existing fill encountered in our explorations will require removal where present under areas of new foundations. AESI should be allowed to review the final project plans, once they have been developed, to revise our recommendations, as necessary.

9.0 SITE PREPARATION

Site preparation should include removal of all demolition debris from the existing improvements and any other deleterious material. Where any existing loose fill or natural sediments are relatively free of organics and near their optimum moisture content for compaction, they can be segregated and considered for reuse as structural fill. The native sediments encountered in our explorations may be above optimum moisture for compaction and may be difficult to reuse as structural fill. Existing topsoil should be stripped from planned structure areas. The observed in-place depth of grass and topsoil at the exploration locations is presented on the exploration logs in the Appendix. Depths of unsuitable soils may vary randomly on previously graded sites. After stripping, remaining roots and stumps should be removed from structural areas. All soils disturbed by stripping and grubbing operations should be recompacted, as discussed under the "Structural Fill" section of this report.

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Existing fill beneath planned foundation areas should be removed as discussed in the "Foundations" section of this report. Buried utilities should be removed from planned foundation areas and should be abandoned in place or removed from below planned new paving. Any depressions below planned final grades caused by demolition activities should be backfilled with structural fill, as discussed under the "Structural Fill" section of this report. Below planned slab-on-grade or other pavement areas, existing fill should be exposed, proof-rolled, and compacted to 95 percent of the modified Proctor maximum dry density. If a firm and unyielding condition is achieved, no further remedial preparation would be needed. If yielding conditions are encountered, existing fill should be partially removed and replaced with imported structural fill. The depth of replacement of the existing fill below planned slab-on-grade or other pavement areas should be determined at the time of construction when field conditions are known.

9.1 Temporary Cut Slopes

In our opinion, stable construction slopes should be the responsibility of the contractor and should be determined during construction based on the conditions encountered at that time. For estimating purposes, however, we anticipate that temporary, unsupported cut slopes in undisturbed dense lodgement till sediments can be planned at a maximum slope of 1H:1V (Horizontal:Vertical). Temporary, unsupported cut slopes in the loose to medium dense fill can be planned at 1.5H:1V. Temporary cut slopes may need to be adjusted in the field at the time of construction based on the presence of groundwater. This should be determined in the field by the geotechnical engineer. As is typical with earthwork operations, some sloughing and raveling may occur, and cut slopes may have to be adjusted in the field. In addition, WISHA/OSHA regulations should be followed at all times. If steeper or deeper cuts are required, then temporary shoring may be necessary.

9.2 Site Disturbance

The existing fill soils and the native soils onsite contain a high percentage of fine-grained material, which makes them moisture-sensitive and subject to disturbance when wet. Some of the soils encountered in our explorations appear to be above their optimum moisture content for compaction at the time of our study. The contractor must use care during site preparation and excavation operations so that the underlying soils are not softened, particularly during wet weather conditions. If disturbance occurs in areas of conventional footings or structural areas, the softened soils should be removed, and the area brought to grade with clean crushed rock fill. Because of the moisture-sensitive nature of the soils, we anticipate that wet weather construction would significantly increase the earthwork costs over dry weather construction.

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9.3 Site Drainage and Surface Water Control

The site should be graded to prevent water from ponding in construction areas and/or flowing into excavations. Exposed grades should be crowned, sloped, and smooth drum-rolled at the end of each day to facilitate drainage. Accumulated water must be removed from subgrades and work areas immediately prior to performing further work in the area. Equipment access may be limited, and the amount of soil rendered unfit for use as structural fill may be greatly increased if drainage efforts are not accomplished in a timely sequence. If an effective drainage system is not utilized, project delays and increased costs could be incurred due to the greater quantities of wet and unsuitable fill, or poor access and unstable conditions.

During construction, surface water should be routed away from the site slopes and conveyed to an appropriate discharge location. At no time should uncontrolled surface water flow onto the site slopes.

Final exterior grades should promote free and positive drainage away from proposed new structures at all times. Water must not be allowed to pond or to collect adjacent to foundations or within the immediate structure area. We recommend that a gradient of at least 3 percent for a minimum distance of 10 feet from the structures be provided, except in paved locations. In paved locations, a minimum gradient of 1 percent should be provided, unless provisions are included for collection and disposal of surface water adjacent to the structures.

9.4 Wet Season Construction

The existing fill material and portions of the native sediments contain substantial silt and are considered highly moisture-sensitive. Soils excavated onsite will likely require drying during favorable weather conditions to allow their reuse in structural fill applications. Care should be taken to seal all earthwork areas during mass grading at the end of each workday by grading all surfaces to drain and sealing them with a smooth-drum roller. Stockpiled soils that will be reused in structural fill applications should be covered whenever rain is possible.

If wet season construction is expected, crushed rock fill should be used to provide construction staging areas where exposed soil is present. The stripped subgrade should be observed by the geotechnical engineer, and should then be covered with a geotextile fabric, such as Mirafi 500X or equivalent. Once the fabric is placed, we recommend using a crushed rock fill layer at least 10 inches thick in areas where construction equipment will be used. Soil cement admixture is another approach to treat over-optimum moisture soils during the wet seasons. We are available to provide a more detailed cement-treatment plan on request and if allowed by the governing jurisdiction.

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9.5 Frozen Subgrades

If earthwork takes place during freezing conditions, all exposed subgrades should be allowed to thaw, and then be recompacted prior to placing subsequent lifts of structural fill or foundation components. Alternatively, the frozen material could be stripped from the subgrade to reveal unfrozen soil prior to placing subsequent lifts of fill or foundation components. The frozen soil should not be reused as structural fill until allowed to thaw and adjusted to the proper moisture content, which may not be possible during winter months.

10.0 STRUCTURAL FILL

All references to structural fill in this report refer to subgrade preparation, fill type, placement, and compaction of materials, as discussed in this section. If a percentage of compaction is specified under another section of this report, the value given in that section should be used. For backfill of buried utilities in the right-of-way, the backfill should be placed and compacted in accordance with the City of Bellevue codes and standards.

After stripping, planned excavation, and any required overexcavation have been performed to the satisfaction of the geotechnical engineer/engineering geologist, the surface of the exposed ground should be recompacted to a firm and unyielding condition. If the subgrade contains too much moisture, adequate recompaction may be difficult or impossible to obtain, and should probably not be attempted. In lieu of recompaction, the area to receive fill should be blanketed with washed rock or quarry spalls to act as a capillary break between the new fill and the wet subgrade. Where the exposed ground remains soft and further overexcavation is impractical, placement of an engineering stabilization fabric may be necessary to prevent contamination of the free-draining layer by silt migration from below.

After recompaction of the exposed ground is tested and approved, or a free-draining rock course is laid, structural fill may be placed to attain desired grades. Structural fill is defined as non-organic soil, acceptable to the geotechnical engineer, placed in maximum 8-inch loose lifts, with each lift being compacted to 95 percent of ASTM D-1557. The top of the compacted fill should extend horizontally outward a minimum distance of 3 feet beyond the locations of the perimeter footings or roadway edges before sloping down at a maximum angle of 2H:1V. The contractor should note that any proposed fill soils should be evaluated by AESI prior to their use in fills. This would require that we have a sample of the material at least 72 hours in advance to perform a Proctor test and determine its field compaction standard.

Soils in which the amount of fine-grained material (smaller than the No. 200 sieve) is greater than approximately 5 percent (measured on the minus No. 4 sieve size) should be considered moisture-sensitive. The existing fill and native sediments are estimated to contain

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substantially more than 5 percent fine-grained material. Use of moisture-sensitive soil in structural fills should be limited to favorable dry weather and dry subgrade conditions. Construction equipment traversing the site when the soils are wet can cause considerable disturbance.

If fill is placed during wet weather or if proper compaction cannot be obtained, a select import material consisting of a clean, free-draining gravel and/or sand should be used. Free-draining fill consists of non-organic soil, with the amount of fine-grained material limited to 5 percent by weight when measured on the minus No. 4 sieve fraction, and at least 25 percent retained on the No. 4 sieve.

A representative from our firm should inspect the stripped subgrade and be present during placement of structural fill to observe the work and perform a representative number of in-place density tests. In this way, the adequacy of the earthwork may be evaluated as filling progresses, and any problem areas may be corrected at that time. It is important to understand that taking random compaction tests on a part-time basis will not assure uniformity or acceptable performance of a fill. As such, we are available to aid the client in developing a suitable monitoring and testing program.

11.0 FOUNDATIONS

Spread footings may be used for support of structures when they are founded on approved structural fill placed as described above, or on undisturbed natural soils that are prepared as recommended in this report. Based on our observations, suitable foundation bearing soils are approximately 3 feet below the existing ground surface in the area of the proposed new picnic structure within the northeast area of the site. Existing fill as deep as 12.5 feet below the existing ground surface was present in our explorations near the western slope. Fill depths can vary randomly.

Spread footings may be used for building support when founded directly on medium dense to very dense, undisturbed, native deposits or on structural fill placed above suitable native deposits, as previously discussed. If foundations will be underlain by a combination of medium dense to very dense native sediments and new structural fill, we recommend that an allowable bearing pressure of 2,500 pounds per square foot (psf) be used for design purposes, including both dead and live loads. An increase of one-third may be used for short-term wind or seismic loading.

Perimeter footings should be buried at least 18 inches into the surrounding soil for frost protection. However, all foundations must penetrate to the prescribed bearing stratum, and no foundations should be constructed in or above loose, organic, or existing fill soils. Anticipated

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settlement of footings founded as recommended should be less than 1 inch with differential settlement one-half of the anticipated total settlement. Most of this movement should occur during initial dead load applications. However, disturbed material not removed from footing trenches prior to footing placement could result in increased settlements. All footing areas should be observed by AESI prior to placing concrete to verify that the design bearing capacity of the soils has been attained and that construction conforms to the recommendations contained in this report. Such observation may be required by the City of Bellevue. A perimeter foundation drain system should be provided as discussed under the "Drainage Considerations" section of this report.

It should be noted that the area bounded by lines extending downward at 1H:1V from any footing must not intersect another footing or intersect a filled area that has not been compacted to at least 95 percent of ASTM D-1557. In addition, a 1.5H:1V line extending down and away from any footing must not daylight because sloughing or raveling may eventually undermine the footing. Thus, footings should not be placed near the edges of steps or cuts in the bearing soils.

The contractor must use care during site preparation and excavation operations so that the underlying soils are not softened. If disturbance occurs, the softened soils should be removed, and foundations extended down to competent natural soil. If foundation excavation will occur during the wet season, consideration should be given to "armoring" the exposed subgrade with a thin layer of rock to provide a working surface during foundation construction. We recommend a 6-inch layer of crushed rock for this purpose.

12.0 DRAINAGE CONSIDERATIONS

Traffic across the on-site soils when they are damp or wet will result in significant disturbance. Therefore, during site work and construction, the contractor should provide surface drainage and subgrade protection, as necessary.

Any retaining walls and all perimeter foundation walls should be provided with a drain at the footing elevation. Drains should consist of rigid, perforated, polyvinyl chloride (PVC) pipe surrounded by washed gravel. The level of the perforations in the pipe should be set at the bottom of the footing, and the drains should be constructed with sufficient gradient to allow gravity discharge away from the structures. The perforations should be located on the lower portion of the pipe. In addition, any retaining or subgrade walls should be lined with a minimum, 12-inch-thick, washed gravel blanket, backfilled completely with free-draining material, or lined with a drainage mat, such as MiraDRAIN 6000, over the full height of the wall (excluding the topmost 1 foot below the surface). This drainage material should tie into the footing drains and must be installed and backfilled in strict accordance with the manufacturer's

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specifications. Roof and surface runoff should not discharge into the footing drain system, but should be handled by a separate, rigid, tightline drain.

To mitigate erosion, stormwater discharge or concentrated runoff should not be allowed to flow down any steep excavation cuts. In planning, exterior grades adjacent to walls should be sloped downward away from the structures to achieve surface drainage. Runoff water from impervious surfaces should be collected by a storm drain system that discharges into the site stormwater system.

13.0 FLOOR SUPPORT

Floor slabs can be supported on medium dense to dense native soils, on new structural fill placed above native sediments, or on a minimum of 2 feet of new structural fill where existing fill soils are encountered. Floor slabs should be cast atop a minimum of 4 inches of clean, washed, crushed rock or pea gravel to act as a capillary break. Areas of subgrade that are disturbed (loosened) during construction should be compacted to a non-yielding condition prior to placement of capillary break material. Floor slabs should also be protected from dampness by an impervious moisture barrier at least 10 mils thick. The moisture barrier should be placed between the capillary break material and the concrete slab.

14.0 FOUNDATION WALLS

All backfill behind foundation walls or around foundation units should be placed as per our recommendations for structural fill and as described in this section of the report. Horizontally backfilled walls, which are free to yield laterally at least 0.1 percent of their height, may be designed to resist lateral earth pressure represented by an equivalent fluid equal to 35 pounds per cubic foot (pcf). Fully restrained, horizontally backfilled, rigid walls that cannot yield should be designed for an equivalent fluid of 50 pcf. Walls with sloping backfill up to a maximum gradient of 2H:1V should be designed using an equivalent fluid of 55 pcf for yielding conditions or 75 pcf for fully restrained conditions. If parking areas are adjacent to walls, a surcharge equivalent to 2 feet of soil should be added to the wall height in determining lateral design forces.

As required by the 2015 IBC, retaining wall design should include a seismic surcharge pressure in addition to the equivalent fluid pressures presented above. Considering the site soils and the recommended wall backfill materials, we recommend a seismic surcharge pressure of 5H and 10H psf, where H is the wall height in feet for the "active" and "at-rest" loading conditions, respectively. The seismic surcharge should be modeled as a rectangular distribution with the resultant applied at the midpoint of the walls.

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The lateral pressures presented above are based on the conditions of a uniform backfill consisting of excavated on-site soils, or imported structural fill compacted to 90 percent of ASTM D-1557. A higher degree of compaction is not recommended, as this will increase the pressure acting on the walls. A lower compaction may result in settlement of the slab-on-grade or other structures supported above the walls. Thus, the compaction level is critical and must be tested by our firm during placement. Surcharges from adjacent footings or heavy construction equipment must be added to the above values. Perimeter footing drains should be provided for all retaining walls, as discussed under the "Drainage Considerations" section of this report.

It is imperative that proper drainage be provided so that hydrostatic pressures do not develop against the walls. This would involve installation of a minimum 1-foot-wide blanket drain to within 1 foot of finish grade for the full wall height using imported, washed gravel against the walls.

14.1 Passive Resistance and Friction Factor

Lateral loads can be resisted by friction between the foundation and the natural soils or supporting structural fill soils, and by passive earth pressure acting on the buried portions of the foundations. The foundations must be backfilled with structural fill and compacted to at least 95 percent of the maximum dry density to achieve the passive resistance provided below. We recommend the following allowable design parameters which include a factor of safety of 1.5:

- Passive equivalent fluid = 250 pcf
- Coefficient of friction = 0.35

15.0 STORMWATER INFILTRATION FEASIBILITY

Due to the shallow groundwater observed in the exploration borings, the presence of existing fill, Holocene alluvium, and low-permeability Vashon lodgement till and pre-Fraser deposits, it is the opinion of AESI that shallow on-site stormwater infiltration is not feasible due to high fines content, shallow hydraulic restrictive layers, and concerns regarding lateral flow of infiltrated water onto steep slopes. Stormwater infiltration facilities are not recommended at the project site.

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16.0 FIELD DRAINAGE CONSIDERATIONS

If wet topsoil conditions on the field surface are to be mitigated, we recommend that a subsurface drainage system (underdrains) be provided below the existing field due to the low permeability of the existing fill and native soils. It is our understanding that a stormwater vault is being considered to store water collected from an underdrain system. The stormwater vault will potentially be located within the southwest area of the existing field. A new underdrain system should consist of perforated pipes with an invert of at least 12 inches below final grade and be enveloped in washed pea gravel which freely communicates with the field surfacing.

As stated previously, the subsurface conditions encountered during our explorations are not considered conducive to stormwater infiltration However, a portion of stormwater impacting the existing field will bypass the underdrain system and migrate downward or laterally. Based on our review of vertical hydraulic conductivity ranges for till presented in *Hydrogeologic Framework of the Puget Sound Aquifer System, Washington and British Columbia* by J.J. Vaccaro, A.J. Hansen, Jr., and M.A. Jones (U.S. Geological Survey Professional Paper 1424-D, 1998), we recommend that an infiltration value of 0.001 inches per hour be assumed to represent this migration of stormwater which bypasses the underdrain system for the field.

We defer to the field designer for specific underdrain requirements and are available to provide geotechnical recommendations related to underdrain design on request.

17.0 PAVEMENT AND SIDEWALK RECOMMENDATIONS

The pavement sections included in this report section are for driveway and parking areas onsite, and are not applicable to right-of-way improvements. If any new paving of public streets is required, we should be allowed to offer situation-specific recommendations.

Pavement areas should be prepared in accordance with the "Site Preparation" section of this report. If the stripped native soil or existing fill pavement subgrade can be compacted to 95 percent of ASTM D-1557 and is firm and unyielding, no additional overexcavation is required. Soft or yielding areas should be overexcavated to provide a suitable subgrade and backfilled with structural fill. The upper 2 feet of pavement subgrade should be recompacted to 95 percent of ASTM D-1557. If required, structural fill may then be placed to achieve desired subbase grades.

We anticipate the interior parking lot and aisles will be subject to light traffic loads from passenger vehicles driving and parking. In these light traffic load areas, we recommend a pavement section consisting of 3 inches of Class ½-inch hot-mix asphalt (HMA) underlain by 4 inches of crushed surfacing base course (CSBC) that meets Washington State Department of

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Transportation (WSDOT) Standard Specification 9-03.9(3). We anticipate that select areas of pavement onsite may encounter heavier loading from buses, fire trucks, and garbage trucks, along with passenger vehicles. In these heavy traffic areas, a minimum pavement section consisting of 4 inches of ½ inch HMA underlain by 6 inches of CSBC is recommended.

The crushed rock will provide improved and consistent drainage, which will extend the service life of the parking lot. The crushed rock courses must be compacted to 95 percent of the maximum density, as determined by ASTM D-1557. All paving materials should meet gradation criteria contained in the current WSDOT Standard Specifications.

Depending on construction staging and desired performance, the crushed base course material may be substituted with asphalt treated base (ATB) beneath the final asphalt surfacing. The substitution of ATB should be as follows: 4 inches of crushed rock can be substituted with 3 inches of ATB, and 6 inches of crushed rock may be substituted with 4 inches of ATB. ATB should be placed over a native or structural fill subgrade compacted to a minimum of 95 percent relative density, and a 2-inch thickness of crushed rock to act as a working surface. If ATB is used for construction access and staging areas, some rutting and disturbance of the ATB surface should be expected. The general contractor should remove affected areas and replace them with properly compacted ATB prior to final surfacing.

For sidewalks, we recommend a pavement section consisting of at least 4 inches of Portland cement concrete over 4 inches of compacted CSBC.

18.0 PROJECT DESIGN AND CONSTRUCTION MONITORING

We recommend that we be allowed to review project plans when they are completed and to revise the recommendations presented in this report as needed.

We are available to provide geotechnical engineering and monitoring services during construction. The integrity of the foundation system depends on proper site preparation and construction procedures. In addition, engineering decisions may have to be made in the field in the event that variations in subsurface conditions become apparent. Construction monitoring services are not part of our currently approved scope of work.

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We have enjoyed working with you on this study and are confident these recommendations will aid in the successful completion of your project. If you should have any questions or require further assistance, please do not hesitate to call.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

Charles Christopher, G.I.T.

Staff Geologist

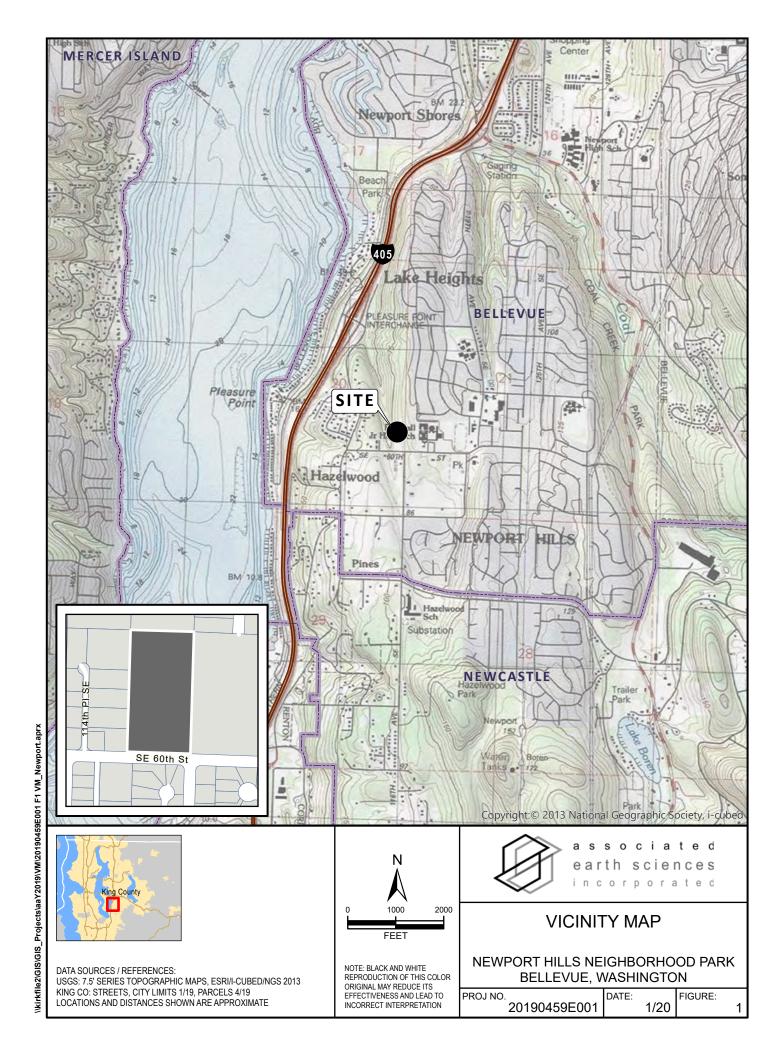
Jeffrey P. Laub, L.G., L.E.G. Senior Engineering Geologist Bruce L. Blyton, P.E. Senior Principal Engineer

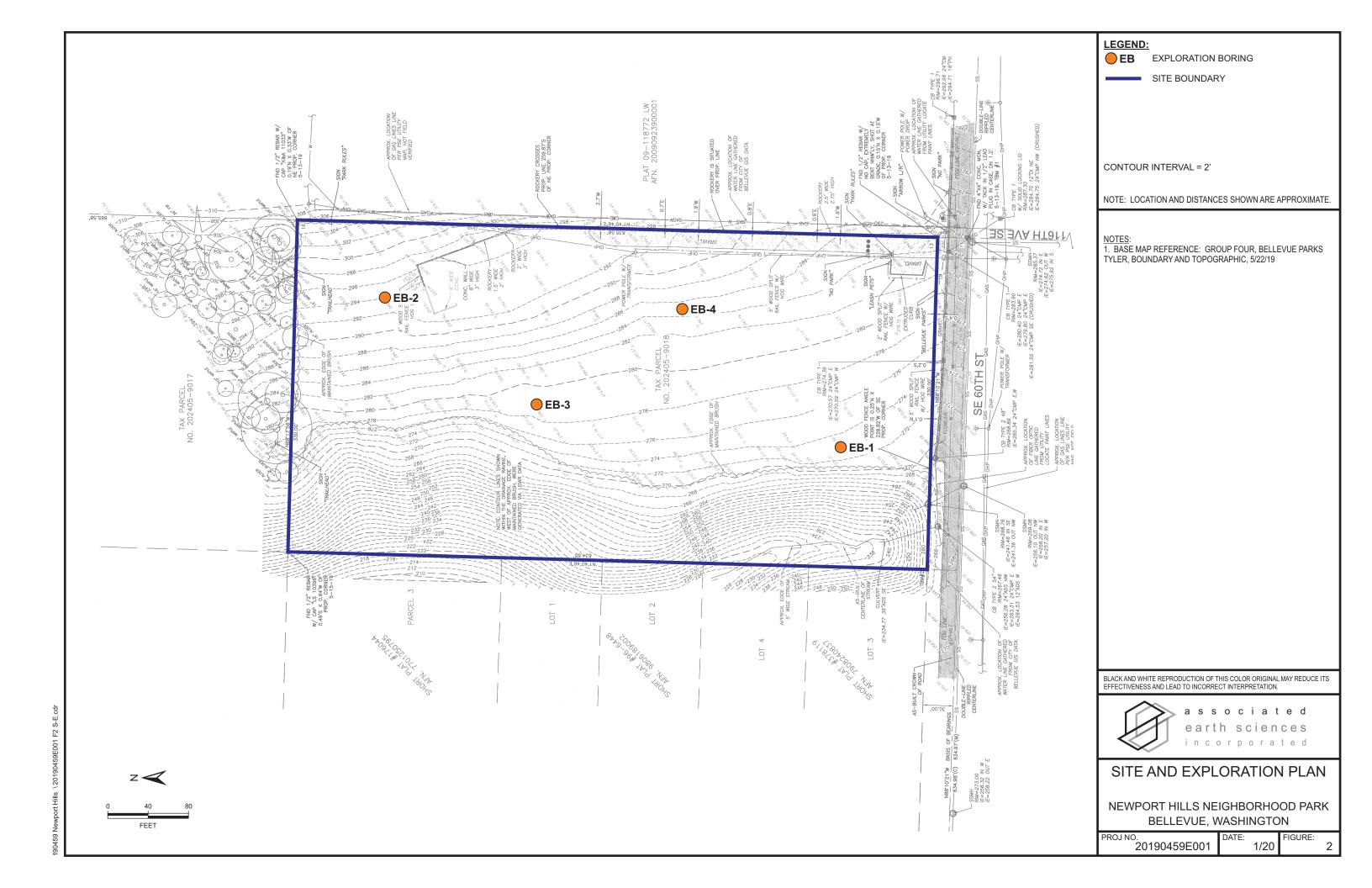
Attachments:

Figure 1: Vicinity Map

Figure 2: Site and Exploration Plan

Appendix: Exploration Logs





APPENDIX

Exploration Logs

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Depth (ft)	S	Samples	Graphic Symbol		DESCRIPTION					10		ows/F		10	Other Tests
_	Н		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Topsoil - 2 inches		+		4						
		S-1 S-2		medium SAND, blowcounts are Grinding drill ac Moist, dark gray	Fill s: moist to very moist, brown to dark be some gravel to gravelly; broken gravelikely overstated (SM). tion at 1.5 feet. vish brown with slight oxidation, fine to y, some gravel; occasional charcoal (SV)	els in sampler; medium SAND,			12 9		A	▲ 25			
- 5		S-3		No recovery, ro	ck blocking sampler; blowcounts are l	ikely overstated.			1 4 7		11				
		S-4		Moist, bluish grander recovery (ML).	ay to brown, SILT, some fine sand, tra	ace gravel; little			3 4 4	A 8					
- 10	E	S-5		Grinding drill ac No recovery wit bluish gray to b	tion at 9.5 feet. hin sampler. Cuttings consisted of mo rown, SILT, some fine sand, trace gra	oist to very moist, vel (ML).		Ţ	5 4 2	▲6					
					Pre-Fraser Deposits										
- - 15 -		S-6		sampler (SM).	own, silty, fine SAND, some gravel; su drill action at 17 feet.	uspended water in			8 12 15			A 2	?7		
- 20		S-7		mostly massive	to medium SAND, trace to some silt; on the silt; on the second se	occasional rootlets; ampler (SP-SM).	_		24 29 48					4	77
- 25 - -		S-8		Moist, brown be oxidation, sand	ecoming gray with depth and slight to l y, SILT; massive; reacts slightly with h	neavy banded lydrochloric acid (ML).			18 20 23					▲43	
Sa]	2" OE 3" OE		Spoon Sampler (S Spoon Sampler (I		Moisture Water Level () Water Level at time o	f drillin	g (ATD)			ed by	: CI	RC HS

	e :	arth	ciated sciences	Project Number 20190459E001	Exploration Exploration Number 1	Bori umber	ng		2						
Project No Location Driller/Equi	ame uipmen	ıt	Newport Hills Neighborhood Park Bellevue, WA Boretec / EC 95 Track Drill 140# / 30			Datum Date S	tart/F	2 of 2 urface Elevation (ft) _~273 NAVD_88 /Finish1/16/20,1/16/20 eter (in)7.5							
Depth (ft)	Samples	Graphic Symbol		DESCRIPTION		Well				Blows/Foot					
- -	S-9		Moist to very m hydrochloric ac	oist. grav. sandv. SILT: massive: rea	acts slightly with		25 43 50/6	10	20	30	40	50/6"			
- 35	S-10		As above; som	e fine sand (ML).			13 23 40				4	♣ 63			
- 40	S-11		As above (ML).				15 25 27					52			
- 45	S-12		As above; thin	zones of light gray discoloration (ML).		12 19 32				4	51			
- 50	S-13		Bottom of explora	is with hydrochloric acid (ML). ion boring at 51.5 feet untered at 11 feet as noted on outside of s	ampler at time of drilling.		13 17 32				•	49			
- 55 															
		Split S	Spoon Sampler (S Spoon Sampler (I	O & M)	I - Moisture Z Water Level () Z Water Level at time (of drilling	(ATI	D)		ogged b	oy: CF	RC HS			

	}		ociated sciences	Project Number	Exploration Exploration Num	Borir	ng	Sheet						
\ll			rporated	20190459E001	EB-2				1 of 1					
Project N Location Driller/Eq Hammer	uipme		Bellevue, W	ls Neighborhood Park /A C 95 Track Drill		Ground Datum Date St Hole Dia	art/Fi	nish .	Elevation (ft) _~294 _NAVD 88 _1/16/20,1/16/20 					
Depth (ft)	Samples	Graphic Symbol		© ≥ DESCRIPTION					Blows			Other Teete		
		7/1 N. 7/		Topsoil - 6 inches				10	20	30 40		\vdash		
	S-1		Lower 6 inches fine to medium	Fill : moist to very moist, brown with mode SAND, some gravel; occasional rootle Topsoil	rate oxidation, silty, ts; unsorted (SM).		4 11 10		≜ 21					
	S-3		Grinding on roc Upper 6 inches (ML).	k at 2 feet. : wet, dark brown, sandy, SILT; abund Vashon Lodgement Till	ant organics/rootlets		4 8 7	4	1 5					
5	S-4		(SM).	 very moist, grayish brown with moder ine to medium SAND; mottled; unsorted prown with moderate oxidation, silty, fir asorted (SM). 			7 20 8			≜ 28				
	S-5		As above (SM)				17 26 36				▲ 62			
10	S-6		As above (SM)				49 50/4"				▲ 50/4	"		
			Difficult drill act	ion at 10 feet.										
15	S-7		As above (SM)				50/6"				\$50/6	; "		
				Pre-Fraser Deposits		_								
20	S-8		Moist, gray, SIL acid (ML).	T, some fine sand; massive; no reacti	on to hydrochloric		19 24 29				▲ 53			
				tion boring at 21.5 feet ountered at 2.5 feet as noted on outside of sar	mpler at time of drilling.									
- 25														
	2" OE		[]: Spoon Sampler (Spoon Sampler (I		Moisture Water Level ()	1	1 1	1		ged by:	CRC /: JHS			

	7		arth	ociated sciences	Project Number	Exploration Exploration Num	Bor ber	in	g				eet of 1		
Project Location Driller/E	n Equ	ame uipme	nt	Newport Hil Bellevue, W Boretec / E0	20190459E001 Is Neighborhood Park /A C 95 Track Drill		Datur Date	n Sta	art/F	inish	ace Elevation (ft) <u>~27</u> _NAVD 88				
Depth (ft)	S	Samples	Graphic Symbol		DESCRIPTION							ows/F			Other Teete
-		S-1	<u> </u>		Topsoil - 6 inches Fill : moist, dark brown with moderate over a contract, moderate fine organics, rootlet		-	Water Level	4 3 11	1	0 2 ▲ ₁₄		0 40	0	
- - - 5		S-2 S-3		Lower 6 inches gravel; massive Moist, gray, SIL structure; grade	Topsoil - 6 inches : moist to very moist, dark brown with and rootlets; occasional charcoal (Marille to very moist, gray, fine to medium SA (SP-SM). T, trace gravel; occasional charcoal es to moist, brown, silty, fine to medium poler head (SM-ML).	ND, some silt, trace and rootlets; chaotic	-		4 3 2 8 7 6	▲ ₅	▲ 13				
- -		S-4		Moist to very m	oist, bluish gray to brown, SILT, somnal woody debris, rootlets, and chard me silt, trace gravel (SP-ML). Holocene Alluvium	e fine sand, trace oal; zone (1 inch thick)	_		1 4 6	4	10				
- 10 - -		S-5		roots and wood	et, dark brown, SILT, some fine sand y debris; occasional charcoal; rangir trace silt; stratified beds (2 to 6 inch	g to gray, fine to		¥	1 2 2	▲ 4					
- 15 		S-6		Moist, gray bed banded oxidation	Vashon Lodgement Till ng difficulty at 14 feet. oming grayish brown towards bottom on, silty, fine to medium SAND, something drill action begins at 16 feet.	n of sampler with slight e gravel; unsorted (SM).	_		12 24 40						^ 64
- 20 -		S-7		SAND, some g Bottom of explora	prown with slight banded oxidation, si ravel; unsorted (SM). tion boring at 20.5 feet buntered at 10 feet as noted within sample a		_	5	50/5"						\$ 50/5"
- 25 - Sa															
- Sa [_ `	2" OE 3" OE	•	Spoon Sampler (Spoon Sampler (I	D & M)	I - Moisture ' Water Level () ' Water Level at time of	drillin	 	ATF))			ed by:	CF D y : JH	

\ll	11	earth	ociated sciences rporated	Project Number 20190459E001	xploration Exploration Num EB-4	BOri mber	ng		1			
Project I ocation Priller/Edamme	า quipme	ent ht/Drop	Bellevue, W Boretec / EC	s Neighborhood Park A 2 95 Track Drill		Ground Surface Elevation (ft) Datum						
Depth (ft)	Samples	Graphic Symbol		DESCRIPTION					Blows		40	Othor Tooto
	S-1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lower 4 inches: gravel; unsorted Grinding on rocl	Topsoil - 2 inches Vashon Lodgement Till moist, grayish brown, silty, fine to media I (SM).	um SAND, some		15 20 24	10	20		▲44	
	S-2		As above; range	es to very moist; moderately oxidized (SI	M).		20 9 9		1 8			
5 -	S-3		Difficult drill acti	on begins at 4 feet. t (SM).			20 27 27				4	54
-	∐ ∏ S-4		As above (SM).				50/5	"			4	50/5"
10	S-5		As above (SM).				42 40 50/6	,				↑ 50/6"
15 -	S-6		Pre-Fraser Dep sand, trace grav Bottom of explorat	osits - As above; becoming SILT, trace tele; massive; one slickenside; high angle	o some fine fracture (SM-ML).		22 36 49					♣ 85

Newport Hills SE 60th Street Neighborhood Park 20-114187-LO Page 25 of 25

Attachment E



SEPA Environmental Checklist

Purpose of checklist:

The City of Bellevue uses this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and reports. Please make complete and accurate answers to these questions to the best of your ability in order to avoid delays.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

PLEASE REMEMBER TO SIGN THE CHECKLIST. Electronic signatures are also acceptable.

A. Background [help]

- 1. Name of proposed project, if applicable: [help]
 Newport Hills SE 60th St Neighborhood Park Development
- 2. Name of applicant: [help]
 Ciy of Bellevue Parks & Community Services
- 3. Address and phone number of applicant and contact person: [help] Scott Vander Hyden, 425-452-4169 450 110th Ave NE, Bellevue
- 4. Date checklist prepared: [help] September 10, 2020
- 5. Agency requesting checklist: [help]
 City of Bellevue Land use
- 6. Proposed timing or schedule (including phasing, if applicable): [help]
 Construction starting Spring/Summer of 2021 and completion in Fall of 2021
 This timeline may be subject to change
- 7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]

 Possible trail links from north parcels, no plans developed
- 8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]
 Critical Areas Report, Stream Typing Analysis, Geotechnical Report
 Stormwater Site Plan, CSWPP
- 9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]
 None
- 10. List any government approvals or permits that will be needed for your proposal, if known. [help]
 City of Bellevue Critical Areas Land Use Permit, Commercial
 Clear and Grade Permit, ROW street Use Permit, Building Permit,
 Drainage Review, NPDES Construction Stormwater General Permit,
 all not yet applied for. Mechanical, Electrical and Plumbing permits
- 11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]
 - Development of an approximately 3 acres of a 13.7 acre site into a neighborhood park including off-leash dog area, play area, parking lot, picnic shelter, loop pathway, play structure, open lawn and ROW improvements including street parking and crosswalk.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

11560 SE 160th Street - vicinity map attached

B. Environmental Elements [help]

1. Earth [help]

- a. General description of the site: [help] (select one): □Flat, □rolling, ⊠hilly, ⊠steep slopes, □mountainous, other: Click here to enter text.
- b. What is the steepest slope on the site (approximate percent slope)? [help]
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

 Soils encounterd in the geotechnical investigation include topsoil, fill material, Holocene alluvium, Vashon lodgement till, and pre-Fraser depostis.
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]

The steep slope in the western portion of the site is classified as a landslide hazard risk under the BMC due to it having a slope of 40 percent over 10 feet and exceeding 1,000 square feet in area as well as having a slope of 15 percent over 10 feet showing geomorphological features indicative of past failures and areas with daylighting seepage on the sloe face. The geotechnical investigations observed some emergent seepage, hummocky ground, mid slope terraces and back-rotated trees near the south end of the slope.

Steep slope is also considered part of the stream bed.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

On-site earthwork will consist of limited filling, to a maximum depth of approximately 4-ft, in the northeastern portion of the site to soften the grades in the proposed open lawn area. Additional earthwork will be necessary for construction and installation of the detention vault. Excess material generated from the detention vault excavation will be used as fill in other areas on-site and/or will be distributed

throught the site for landscape features. Import of material will be needed for the proposed grading activites. The anticipated earthwork volumes for the site, including stripping, are approximately 3,000 CY cut and 2800 CY fill, however the source of fill will be determined at a later date.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]

Surface erosion may occur as a result of clearing and grading operations.

Site disturbance is expected to be approximately 3.13 acres; the majority of the disturbed area will be uphill of the steep slope. Use of on-site DOE approved erosion control BMPs will control potential erosion.

Sedimentation and Temporary Erosion Control will be reviewed per BCC 23.76

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: <a href="https://example.com/learnt-new-reduce-new-re

2. Air [help]

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]

 Construction equipment odors, approximate quantities-minimal.
- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
 None expected

3. Water [help]

- a. Surface Water:
 - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]

 Type U unnamed stream located in Southeast corner of the property flowing northwest. Unnamed Stream appears to be tributary to Lake Washington

 Adjacent stream is Lakehurst Creek, a Type F stream.
 - 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described

waters? If yes, please describe and attach available plans. [help]
Yes, portions of park development will be within 200 feet
of the unnamed stream. There will be no work over or in the
stream. Plan submitted for review. Lakehurst Stream

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help] NO
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]
 None

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]
- c. Water runoff (including stormwater):
 - 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

 The source of stormwater will be rainfall. In general storwater runoff from impervious walkways throughout the site will sheet flow onto the adjacent landscaping and grass areas. Runoff from the the parking and driveway areas will be collected in proposed storm drainage structures and conveyance to a proposed detention vault via underground pipes. Runoff from proposed roof areas will be collected with a gutter system which will discharge to the proposed

storm drainage system. The sub-surface drainage from the play ground area will also connect to proposed storm drainage system. All runoff collected in the proposed storm drainage system will discharge to a detention vault to be located in the southeast portion of the site. The detention vault will eventually discharge to the existing municipal storm drainage system within SE 60th Street.

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [help] Highly unlikely, Stormwater runoff from the parking and access drive will pass through a water quality treatment facility prior to discharging to the stormwater detention vault. Stormwater landing in the play structure area will be collected by a sub-surface drainage system and discharged into the site stormwater system. Sheet flow from the remaining impervious walkway surfaces will be dispersed through adjacent landscaping and grass areas.
- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [help]
- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [help]

The proposed drainage system will include a detention vault with a flow control structure such that discharge rates from the site impervious areas match the discharge rates from a pre-developed forested condition. Additionally, water quality treatment will be provided for the proposed pollution generating impervious areas.

4. Plants [help] Project is subject to Utility Code BCC 24.06 and any required Utility permits

a. Check the types of vegetation found on the site: [help]

☑deciduous tree: alder, maple, aspen, other: Alder, Big Leaf Maple

⊠evergreen tree: fir, cedar, pine, other: Douglas Fir, Western Red Cedar

⊠shrubs

⊠grass

□pasture

□crop or grain

□Orchards, vineyards or other permanent crops.

 \Box wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other: Click here to enter text.

□water plants: water lily, eelgrass, milfoil, other: Click here to enter text.

 \Box other types of vegetation: Click here to enter text.

b. What kind and amount of vegetation will be removed or altered? [help]
Invasive blackberry along the top of the slope on the sites

west edge, 2 big leaf maples in decline and selected understory vegetation (500sqft approx.) at the sites north end. tree removal will require verification by a qualified, certified arborist verifying the trees to be removed pose a hazard to structures, streets or sidewalks.

- c. List threatened and endangered species known to be on or near the site. [help] None known
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help] New plantings approx. 80ea additional trees (deciduous and conifers), 800-900ea shrubs and groundcovers, both in new landscape bed areas throughout the site and also to replace invasives removed and as plant mitigation buffer on west edge of site.
- e. List all noxious weeds and invasive species known to be on or near the site. [help] Himalayan Blackberry

5. Animals [help]

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [help]

Examples include:

crows, gulls, owls, jays, woodpeckers, doves

birds: ⊠hawk, Mheron, ⊠eagle, ⊠songbirds, other: osprey mammals: \boxtimes deer, \boxtimes bear, \square elk, \square beaver, other: Coyotes, racoon, bobcat, squirrels and other small mammals typically found in northwest forests.

fish: □bass, ✓salmon, □trout, □herring, □shellfish, other: N/A Salmon present in Lake Washington, at the end of Lakehurst creek

b. List any threatened and endangered species known to be on or near the site. [help] None known

Endangered salmonid species are found in Lake Washington, near the site.

c. Is the site part of a migration route? If so, explain. [help] Unknown

Yes, the Pacific Northwest is located within the Greater Pacific Flyway migration route

- d. Proposed measures to preserve or enhance wildlife, if any: [help] Fencing type TBD and 20-30 foot native planting buffer along the sites west edge (additional 59 trees and 578 Shrubs/ground cover) will allow for wildlife movement through site but prohibit dogs and humans. Off leash area will be fully fenced. All areas outside of the OLA will require dogs to be kept on leash. Interpretive elements/signs to educate park users. Invasive plant removal and replacement with native plantings. Additional decidous and conifer tree planting throughout the site.
- e. List any invasive animal species known to be on or near the site. [help] numerous insect species such as bronze birch borer, gypsy moths, potential presence of New Zealand mud snails in Lakehurst Creek

None known

6. Energy and Natural Resources [help]

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help] n/a
- Would your project affect the potential use of solar energy by adjacent properties?
 If so, generally describe. [help]
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help] n/a

7. Environmental Health [help]

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]
 - Describe any known or possible contamination at the site from present or past uses. [help] n/a
 - Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help] n/a
 - 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]
 - 4) Describe special emergency services that might be required. [help]
 As a proposed public park there are always possible injuries that could occur. Emergency and fire services access will be reviewed by department.
 - 5) Proposed measures to reduce or control environmental health hazards, if any: [help] n/a
- b. Noise [help]
 - 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]

traffic

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indi-cate what hours noise would come from the site. [help]

 Construction equipment operation noise. M-F 7 am -6 pm per city code. Construction noise shall comply with the requirements of BCC 9.18
- 3) Proposed measures to reduce or control noise impacts, if any: [help]

8. Land and Shoreline Use [help]

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]

 The site is currently a mostly undeveloped Bellevue Park owned property. But does include a maintained and fenced 3 acre open lawn area, some limited parking, and woodland trails open for public use. Bellevue School owns the property to the east. Single family homes are adjacent and across SE 60th St. The project will not affect current land uses on nearby or adjacent properties.
- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
 - 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [help]
- c. Describe any structures on the site. [help]
 Remnants of a residential home foundation, fencing
- d. Will any structures be demolished? If so, what? [help]
 Fencing will replaced
- e. What is the current zoning classification of the site? [help] R-5
- f. What is the current comprehensive plan designation of the site? [help] <a href="Single Family
- g. If applicable, what is the current shoreline master program designation of the site? [help] n/a

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]
 Yes, Type U Stream
- i. Approximately how many people would reside or work in the completed project? [help] Weekly maintenance of site by City of Bellevue Staff.
- j. Approximately how many people would the completed project displace? [help]
- k. Proposed measures to avoid or reduce displacement impacts, if any: [help] n/a
- I. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help] Project to be reviewed by Zoning and Land Use department
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: [help]

9. Housing [help]

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]
 n/a
- Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]
- c. Proposed measures to reduce or control housing impacts, if any: [help] n/a

10. Aesthetics [help]

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

 Picnic Shelter not to exceed 20 feet. Shelters will consist of metal roof with wood or metal structural members/framing.

 Security lighting pole height TBD, expected to be no more than 20-30'.
- b. What views in the immediate vicinity would be altered or obstructed? [help] none
- c. Proposed measures to reduce or control aesthetic impacts, if any: [help] n/a

11. Light and Glare [help]

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]
 Minimal or no glare from security lighting. Dusk till dawn.
- b. Project shall comply with Light and Glare requirements of LUC 20.20.522

 b. Could light or glare from the finished project be a safety hazard or interfere with views?

 [help]

 No
- c. What existing off-site sources of light or glare may affect your proposal? $\underbrace{\text{[help]}}_{None}$
- d. Proposed measures to reduce or control light and glare impacts, if any: [help]

 LED light fixtures, shrouds if needed.

 Project lighting shall be shielded to reduce light impacts off site.

12. Recreation [help]

- a. What designated and informal recreational opportunities are in the immediate vicinity? [help] Newport Hills sportsfield (soccer/baseball) a few block east on SE 60th
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]
 Proposed project adds recreational opportunities

13. Historic and cultural preservation [help]

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help] NO
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

 None known
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

 n/a
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be

14. Transportation [help]

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help] SE 60th Street, existing gravel access road to be improved to asphalt driveway access.
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

 No, the nearest bus stop is located at the corner of 114th Pl

 SE and SE 60th St, approximately 350 feet west of the proposed driveway access.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

 The completed project would include five (5) on-site parking spaces and seven (7) parallel parking stalls in the ROW on SE 60th Street. There are currently three (3) on-site parking spaces and approximately nine (9) parallel parking stalls in the ROW on SE 60th Street.
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private), [help] Yes, the project will be required to provide public curb and gutter, planting strip and sidewalk on the north side of SE 60th street along the project frontage while also providing the following half street road section, 11-foot travel lane, 2foot buffer, 5-foot bike lane, 2-foot buffer and 8-foot parking bay. The new frontage improvements will encroach onto the private property. Additionally the project will be required to provide a new curb bulb with curb ramp west of the new site driveway and a companion curb ramp oat the SW corner of the intersection of SE 60th Street and 116th Ave SE. The project will also be required to evaluate the existing street lighting along the project frontage and the addition of new street lighting if the current conditions do not meet the City of Bellevue Street light standards. An actuated crosswalk across SE 60th at the park entrance.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or

transportation models were used to make these estimates? [help]

Parking study conducted. Peak volume would likely be expected during the summer months and on weekends similar to other Bellevue Parks. Truck volume would not see an increase because of project type.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [help]
- h. Proposed measures to reduce or control transportation impacts, if any: [help] None

15. Public Services [help]

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]
- b. Proposed measures to reduce or control direct impacts on public services, if any. [help] n/a

16. Utilities [help]

- a. Circle utilities currently available at the site: [help]
 electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
 other
 Electricity
- c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

Domestic water service including water meter (COB to provide), irrigation water meter(COB to provide), connections to watermain in SE $60^{\rm th}$ Street ROW, sanitary side sewer, connection to existing sanitary sewer manhole in SE $60^{\rm th}$ Street ROW, Electrical for site lighting

C. Signature [help]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Name of signee: Scott Vander Hyden

Position and Agency/Organization: Project Manager City of Bellevue Parks &

Community Services

Date Submitted: September 10, 2020

